

JPRS-TAC-94-004
11 May 1994



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JPRS Report

Arms Control

Arms Control

JPRS-TAC-94-004

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CZECH REPUBLIC

Destruction of Smallpox Virus Strain Remains Unconfirmed

AU2204150094 Prague MLADA FRONTA DNES
in Czech 21 Apr 94 p 1

[Jaroslav Kmenta article: "The Army Tested Small Pox"]

[Text] Prague—Although only a month ago army officials kept quiet about the smallpox virus ever having been studied in Czechoslovakia, the army admitted yesterday that military scholars worked with this dangerous virus in the 1960's and 1970's. Moreover, according to the former employees of the Military Health Institute, the smallpox virus has never been destroyed.

There was no smallpox virus in the viral strain bank that the army liquidated last February, while, according to information available, it was not destroyed in the 1980's either. So far, none of the army or civilian officials we asked has explained what has actually happened to the smallpox virus.

The director of the Central Military Health Institute, Vladimir Radovnický, believes that the virus was destroyed between 1976 and 1978. "The smallpox

virus strain (*variola maior*) was here once, because there is a diagnostic serum. It was a problem of the 1970's. The strain was probably destroyed. Nevertheless, I cannot give a definite answer of when and how it was destroyed. I can only confirm that the smallpox virus was not in the strain bank that was destroyed earlier this year. It would be hard for me to trace what happened in the 1960's and 1970's," he said. He then emphasized that there is no viral strain, ever less the smallpox one, in his institute now.

A former employee of the same institute, who wishes to remain anonymous, and who used to work with the smallpox viruses, asserted that, after the smallpox research was concluded in the 1970's, the strain was frozen in liquid nitrogen and placed in a special container.

In 1979, when thanks to the world-wide systematic inoculation, smallpox was completely suppressed, the General Commission for Elimination of Smallpox recommended that all remaining stock of smallpox virus be either destroyed or transferred to reference laboratories in the United States and the USSR. "We have not respected the research recommendation by the world commission out of laziness, rather than out of bad intentions," the former staffer of the research laboratory admitted.

REGIONAL AFFAIRS

Rio Group, EU Ministers Call for Total Nuclear Test Ban*PY2304023094 Madrid EFE in Spanish
2320 GMT 22 Apr 94*

[Text] Sao Paulo, 22 Apr (EFE)—In a final declaration issued at the end of the fourth meeting of foreign ministers, the Rio Group and the EU today agreed to call for a total ban on nuclear tests in the world and condemned every form of terrorism.

Regarding their commitment to disarmament and to nonproliferation of weapons of mass destruction, the participants of the fourth Rio Group-EU ministerial meeting expressed their complete agreement in condemning every form of nuclear testing.

The Sao Paulo Declaration, which was approved by 13 foreign ministers of the Rio Group and representatives of the EU member countries, states: "The ministers (of the Rio Group and the EU) agree on proposing the signing of a multilateral treaty that would impose a total ban on nuclear tests and would be fully verifiable."

In the Sao Paulo Declaration, the Rio Group and the EU also expressed their total condemnation of terrorism.

The declaration states: "The ministers...condemn without reservations—as an unjustifiable crime—every act of terrorism, irrespective of who perpetrates them, where, or why, because acts of terrorism endanger and claim the lives of human beings. They also undermine human dignity and are a threat to democracy and to a state of law."

The ministerial meeting between the Rio Group and the EU is the fourth since bilateral talks were institutionalized by the Rome Declaration (1990). The meeting, which is being held at the Latin American Parliament (Parlatino) building in the city of Sao Paulo, is scheduled to close on 23 April but the final declaration was released today.

In addition to condemning nuclear tests, the Rio Group-EU ministers praised the "recent progress made in consolidating the regime for a total ban on nuclear weapons in Latin America and the Caribbean as established in the Tlatelolco Treaty."

The declaration also expressed support for the Convention Banning the Development, Production, Storage,

and Use of Chemical Weapons and Their Destruction, and revealed their resolve to adopt specific measures to fully implement the Convention on Biological Weapons.

The Rio Group and the EU also voiced their desire to cooperate to give openness to international arms trade.

The latter point was specifically requested by Andean countries like Colombia, which has been affected by arms trafficking financed by narcotrafficking and terrorist organizations.

The two blocs' representatives agreed to promote a UN Registry of Conventional Weapons with a view to effectively controlling arms possession around the world.

In the Sao Paulo Declaration, which consists of 19 points focusing on economic and political issues, the Rio Group and the EU reaffirm their respect for democracy and the principles of free trade.

The Rio Group and the EU also have agreed to define a new model of bilateral relations in which the Latin American countries would have greater participation in various international issues such as world security and the reform of the UN Charter.

The Latin American countries also expressed their concern about the social, environmental, and labor conditions some European nations are starting to impose on their trade with developing countries.

The continuation and expansion of the Generalized System of Preferences (GSP), which expires this year and regulates trade between the EU and Latin American countries, was another request made by the Rio Group that was included in the final declaration.

The Sao Paulo meeting was attended by all of the foreign ministers of the Rio Group—which consists of Argentina, Bolivia, Brazil, Colombia, Chile, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela. Attending the meeting as observers were the ministers of Trinidad and Tobago and Guatemala, representing the Caribbean and Central America, respectively.

The EU was represented by the foreign ministers of Spain and Portugal; Greek Alternate Foreign Minister Theodoros Pangalos, who is vice president of the EU; deputy ministers; and deputy ministers of the other members of the "Group of 12" (Denmark, Germany, Italy, United Kingdom, Ireland, Belgium, Luxembourg, the Netherlands, and France).

LIBYA

Tarhunah Chemical Weapons Plant Described

BR2104134594 Milan PANORAMA in Italian
16 Apr 94 pp 107-109

[Silvia Aloisi report: "Al-Qadhdhafi's Secret Weapon"—all Libyan place names as published]

[Text] Mu'ammar al-Qadhdhafi's deadly secret is hidden in the sandy desert, at Tarhunah, 65 kilometers south-east of Tripoli. It is here that the Libyan leader is having an enormous installation built for the production of chemical weapons, thus complementing the existing production plant at Rabta.

For years the U.S. secret service had suspected al-Qadhdhafi of planning to build a second chemical plant. Rabta technological center's Pharma-150 plant was detected by the Pentagon in 1988, thanks to photographs taken by the Keyhole satellite. It was immediately defined as "the greatest chemical weapon production plant in the Third World. It was pointless for Tripoli's colonel to deny the facts and say that the plant was only a harmless 'pharmaceuticals factory.'" First Ronald Reagan and later George Bush repeatedly threatened to bomb the plant unless al-Qadhdhafi agreed to an international inspection. The use of force, however, proved unnecessary, since in March 1990 the Rabta plant was half-destroyed by a mysterious fire, which the Libyan authorities attributed to Western-instigated sabotage.

The Tripoli government has not forgotten American threats nor, above all, the allied bombing of Iraqi military installations during the Gulf War and, subsequently, in 1993. Al-Qadhdhafi's decision to have the suspect plant and materials transported to a new secret site was therefore predictable. This, in fact, would enable him to open the doors of the entirely rebuilt Rabta plant to UN inspectors, as a sign of goodwill toward the West.

The construction of the new Tarhunah plant was entrusted to the Jowfe state-owned enterprise, a bogus company which was set up to purchase the necessary equipment for building the plant and manufacturing poison gas. The plant, which is scheduled to become operational by 1995, will be capable of producing mustard gas at the rate of 1,000 metric tons a year, Sarin gas (90 metric tons), and Soman gas (1,300 metric tons). All of these substances are highly toxic to human beings: A small drop is enough to kill an individual within a few minutes.

Suspicions concerning Tripoli's intentions were aroused by the discovery, in England, of a Jowfe purchase order for two chemical production installations. The contract, worth half a million pounds sterling (approximately 1.2 billion lire), had been awarded to the Multinational Engineering Group company, which is part of the British APV company. The deal was camouflaged by means of a three-way operation: Jowfe contacted APV's Malaysian subsidiary APV Hills and Hills, which passed on the order to its parent company in London. In addition to

the equipment, the order included materials for gas production and, in particular, pinacolone alcohol, the basic component for the production of Soman nerve gas.

Other toxic substances were supplied to Jowfe by the Belgian company Hassco, based in Ostend. Among them, ethylene oxide, used for manufacturing mustard gas and incendiary bombs, and dimethylamine, a component of Tabun nerve gas. It is difficult, however, to draw up precise accusations since many toxic products used for chemical weapons are commonly used as fertilizers or pesticides, and are therefore not included in the international list of "risk" substances whose export is forbidden. Ethylene oxide, for example, is used for the production of industrial resins and detergents.

However, the nature of the Tarhunah plant, which is officially presented as a petrochemical complex, also seems to be confirmed by the type of materials bought for its construction. Libya is currently subjected to an international embargo because of its involvement in the 1988 terrorist action against a Pan Am Boeing 747 over Lockerbie. Tripoli is refusing to extradite the two Libyan agents who are suspected of having planted the bomb in the airliner. However, getting round the UN embargo was easy: In fact, the Jowfe company obtained—from Switzerland—the technical specifications for the construction of parallel underground tunnels, 150 meters long, designed by the Sauer engineering company of Salzburg (Austria). This type of tunnel is commonly used in other secret military installations. Furthermore, Libya purchased chemical weapon production equipment whose internal components are covered with enamel or teflon—materials that are extremely resistant to corrosive toxic substances. A sophisticated Swiss air-purification plant—protected by special fire-resistant materials—and a computerized system enabling instruments to function automatically are considered further evidence for the military intended use of the Tarhunah complex.

Libya did not subscribe to the international convention against the proliferation of chemical weapons, which was signed in Paris in January 1993, and it has always refused to have its chemical installations open to international inspection. The Tripoli government supports the position taken by the majority of Arab League countries, which make their possible adhesion to the convention conditional upon international inspection of Israel's secret nuclear installations. In fact, chemical weapons are considered the Arab countries' response to the Jewish state's nuclear potential.

The discovery of the Tarhunah plant may trigger off a new crisis between Tripoli's colonel and the West. The Libyan Government is already facing trouble on its internal front, following the violent anti-regime revolt which broke out last March in the small town of Bani Walid—although al-Qadhdhafi's personal power does not seem to be seriously called into question. The colonel survived the administrations of his longstanding enemies, Reagan and Bush. But Bill Clinton may well decide that the moment has come to resume the hostilities.

REGIONAL AFFAIRS

Bilateral Expert Groups Meet in Moscow**Disarmament on the Agenda**

*LD0405135794 Moscow INTERFAX in English
1304 GMT 4 May 94*

[Text] Another meeting of the bilateral expert group from the Russian and U.S. defense departments began in Moscow on Wednesday.

A spokesman from the Defense Ministry's information and press department has told Interfax that for three days experts will discuss issues associated with European security, the situation in Bosnia, and problems on Russia's joining the Partnership for Peace program. The two sides also intend to exchange views on nuclear safety cooperation and the reduction and further elimination of weapons of mass destruction.

Talks Continue

*LD0505085894 Moscow ITAR-TASS in English
0846 GMT 5 May 94*

[By ITAR-TASS correspondent Vladimir Gondusov]

[Text] Moscow May 5 TASS—A bilateral group of Russian and U.S. experts from the Russian and U.S. defense ministries met in session in Moscow on 4 May. The meeting is being held in a constructive and friendly atmosphere, said Russian Deputy Chief of Staff Dmitriy Kharchenko today.

In an interview with ITAR-TASS Kharchenko said that the sides exchanged opinions on problems of European security, the situation in Bosnia, Russia's joining the Partnership for Peace programme, nuclear weapons in Ukraine and prospects for the development of contacts between the armed forces of the two countries. General Kharchenko pointed out that the Pentagon delegation led by the U.S. defence secretary's aide for issues of nuclear security, Ashton Carter, displayed a particular interest in cooperation in ensuring nuclear security, the reduction and elimination of weapons of mass destruction.

The Russian delegation to the talks led by the Russian defence minister's aide for military politics, Gennadiy Ivanov, informed the American side about the Russian Duma's stance on joint Russo-U.S. exercises of peace-keeping forces scheduled to be held at a Totsk test site in the Orenburg region in May. Pentagon officials believe that it is important to explain to Russian lawmakers that similar exercises are scheduled to be conducted next time on the American soil. The U.S. point of view will be brought to the notice of the Russian military and political leadership, Kharchenko said. The meeting between the two working groups of the U.S. and Russian defense departments continues.

RUSSIA

180 Strategic Missiles Removed From Ukraine to Russia

*LD0405163394 Moscow ITAR-TASS in English
1550 GMT 4 May 94*

[By ITAR-TASS correspondent Anatoliy Yurkin]

[Text] Moscow May 4 TASS—Ukraine has removed to Russia 180 strategic nuclear missiles as of today, Igor Sergeyev, commander of the Russian strategic missile forces, said.

In an interview with ITAR-TASS on Wednesday, Sergeyev said that the missiles will be scrapped at Russian plants as envisaged by the agreements signed by Russia, Ukraine and the United States and START-I Strategic Arms Reduction Treaty.

Sergeyev recalled that under the Lisbon Protocol, Byelorussia [Belarus], Kazakhstan and Ukraine are also parties to the treaty which has been ratified by the U.S., Russia, Byelorussia and Kazakhstan.

He stressed that Russia has already scrapped over 350 missiles and about 300 missile launchers. He added, however, that the implementation of the treaty depends not only on Russia, but also other ex-Soviet republics which possess nuclear weapons.

Russia has signed an agreement with Byelorussia to transfer a group of strategic missile troops in Byelorussia under Russia's control. Russia is also withdrawing strategic missile units from that republic.

A similar agreement was signed with Kazakhstan in March 1994. Both sides are now working on an agreement on the elimination of missile facilities.

Telemetry Equipment Idle While START II Unratified

*PM0305102394 Moscow IZVESTIYA in Russian
30 Apr 94 p 2*

[Viktor Litovkin report: "U.S. Equipment Idle at Russian Missile Range"]

[Text] The racks visible in this photograph are on the third floor of the Russian Strategic Missile Forces' State Test Range located in the town of Mirnyy, Arkhangelsk Oblast. It is equipment made by the U.S. firm of "Metrum-97" [name as transliterated] for reproducing telemetry data. More precisely, it is a magnetic tape player for decoding the flight parameters of strategic missiles developed and launched on test flights by the United States.

It was supplied here last year under a bilateral agreement between the countries, when the second Strategic Arms

Reduction Treaty (START II) was signed. Similar Russian-made equipment—in six rather than two racks—has been set up on U.S. soil near Washington by our officers.

It was assumed that when the two states' parliaments ratified the treaty, the countries would, as a mark of the trust between them, exchange telemetry and other information on the performance of their new and old strategic missiles, their behavior in flight, and other important information which would allow the generals, politicians, and missile designers to take a calm and very respectful view of both sides' scientific and technical developments and to monitor them with greater confidence.

They even exchanged as a goodwill gesture reels of magnetic tape recordings of previous test telemetry—the Americans gave us information on their ground-launched missile, while we gave them information on our sea-launched missile. Once again, they sent us one spool, while we sent them several.

This is not a question of excessive generosity. It is simply that the Americans take the information on their missiles' behavior in flight from a single satellite, while our testers have to take the information from nine measuring stations sited along the country's northern seaboard. From Mirny to Kamchatka. There are stations in Naryan-Mar, Taymyr, Yakutsk, and even on Novaya Zemlya. The information is sent back by military couriers. This is when aircraft are flying and reindeer are not roaming the tundra. [sentence as published]

Because of this the countries set the timetable for the exchange of telemetry at 50 days. Less than that would be impossible. Otherwise there might be suspicions of dishonesty. It would then have to be proved that there was no way out from Novaya Zemlya. That would be no justification in military-diplomatic circles—especially as delivery of magnetic tapes is subsequently provided for by diplomatic pouch.

But, so far, there is nothing to deliver. Apart from the so-called demonstration reels, the high contracting parties have not exchanged anything else. Our parliament—neither the old one nor the new one—has not ratified START II.

A whole telemetry exchange department has been set up at the Russian test range. Colonel Aleksandr Vasilyev, its deputy chief, agreed to be photographed alongside the U.S. equipment for this newspaper. He says that they are not wasting time but are preparing to do serious work on the transatlantic missile information. In principle they are already ready to do so.

So the ball is now in the State Duma's court.

CIS Countries, U.S. Conclude Disarmament Accords

*LD0405220294 Moscow ITAR-TASS World Service
in Russian 1639 GMT 4 May 94*

[By ITAR-TASS correspondent Konstantin Pribytkov]

[Text] Geneva, 4 May—Important accords on disarmament have acquired a mechanism and means needed for their implementation. This is the result of the work of experts from Belarus, Kazakhstan, Russia, Ukraine, and the United States. The statement for the press received at the ITAR-TASS correspondent's office in Geneva notes that today representatives of the five countries concluded a number of multilateral documents dealing with the treaty on the elimination of medium- and short-range missiles. This is the result of the 15th session of the special control commission held in Geneva in January and February as well as subsequent diplomatic exchanges.

Russian Missiles To Be Retargeted

Some Missiles Relocated From Belarus

*PM2104155594 Moscow IZVESTIYA in Russian
21 Apr 94 pp 1, 2*

[Viktor Litovkin report: "Russia's Missile Guard Increased by Nine Topols"]

[Text] Yoshkar-Ola-Moscow—This was unprecedented. The until recently top-secret strategic missile regiment belonging to the Kiev-Zhitomir Order of Kutuzov Missile Division deployed in Yoshkar-Ola inaugurated the performance of alert duty in the presence of Mariy-El Republic President Vladislav Zotin and before the gaze of television journalists, pressmen, and photographers, among whom were IZVESTIYA special correspondents.

The regiment comprises nine RS-12M Topol road-mobile delivery vehicles. Journalists were shown the holy of holies—the alert forces' fixed command post which controls the launch of missiles, the launch area equipment, its protection and defense system, and the guard quarters where the missilemen perform their alert duty—and had all the questions that interest us, including where the missiles are targeted, answered.

Before giving you that answer I would inform you that the regiment was assembled out of different pieces, as it were. Its officer backbone is made up of men who served in the missile unit belonging to the 43d Vinnitsa Army stationed in the settlement of Lebedin, Suma Oblast, Ukraine. The regiment was once equipped with SS-20 Pioneer intermediate-range missiles, which were destroyed some years ago under the Treaty on Intermediate-Range and Shorter-Range Missiles. The new equipment was received last August from the city of Postava, Belorussia [Belarus], from the Topol strategic missile division which was disbanded there and withdrawn from the republic's territory.

These systems replaced some of the RS-12 (SS-13 according to the U.S. classification system) fixed-site missiles with which the Yoshkar-Ola division is equipped. Officer retraining took six months, and they entered on alert duty on their new systems on 19 April.

It is also interesting that the regiment disbanded in Ukraine was created in Akhtyrka in 1655. It was the oldest military unit in Russia and had taken part in the Battle of Poltava. By edict of Empress Elizabeth the regiment was named the Akhtyrka Hussars. It was commanded at the battle of Borodino by General Denis Davydov, who took it as far as Paris. Lermontov and Alyabyev served there...

Now its colors and combat decorations, including the Orders of the Red Banner, Kutuzov, and Bogdan Khmelnistkiy are kept in the Central Museum of the Armed Forces.

The missile officers, I was told by assistant commander Lieutenant Colonel Vitaliy Lezhanin, have asked the Defense Ministry leadership to restore the memorabilia and the honorary title to them, but only time will tell whether the General Staff will heed them. In the opinion of those who perform alert duty today, they have every right.

Colonel Vladimir Kashkin, the commander of the regiment, told me that he doesn't know what his missiles are targeted on. Only the General Staff has such information. But division commander Major General Musa Tsegoyev clarified the position, stating that under the strategic missile agreement with the United States strategic missiles have "zero" targeting and that their mission will only be programmed at a time of threat. They maintain watch to deter any potential aggressor so that never comes to pass.

The missilemen's unprecedented openness in inviting journalists to see the regiment's entry on alert duty is, in my view, not just a desire on their part to report gradually on the execution of their international commitments. There is another reason for this too. As is well known, the former Russian Supreme Soviet did not ratify START, but the reequipping of the missile division in Yoshkar-Ola and the disbandment of strategic regiments in Belorussia and Ukraine constitute the implementation of that treaty.

Russia will keep its word, although the parliamentarians have not turned this word into law.

Retargeting Not to Impair Combat Readiness

LD2804173094 Moscow *ITAR-TASS in English*
1706 GMT 28 Apr 94

[By *ITAR-TASS* correspondent Anatoliy Yurkin]

[Text] Moscow April 28 TASS—"Missile retargeting" planned for this coming May is not to impair the combat readiness of Russian missile forces, according to their commander-in-chief, Colonel-General Igor Sergeyev.

In an interview with TASS after today's meeting with some foreign military attaches, Sergeyev said the "retargeting" will be performed in full accordance with the Moscow declaration signed by the Russian and U.S. Presidents. Under this document, Moscow and Washington are obliged to retarget their strategic nuclear missiles by 30 May 1994, so that they should not be targeted at each other. This initiative was also joined by Great Britain.

According to experts, the scheme of retargeting is not complicated: geographical reference of the targets in Russia and the United States put in the computer working memory are expected to be replaced by those of some desert areas of the world ocean.

Kuntsevich's Dismissal in the News

Personal Interview in NEZAVISIMAYA GAZETA

PM0305140194 Moscow *NEZAVISIMAYA GAZETA*
in Russian 30 Apr 94 pp 1, 6

["First-Hand" Interview with Lieutenant General (Reserve) Anatoliy Kuntsevich, former chairman of Russian president's Committee for Convention Problems of Chemical and Biological Weapons, by Andrey Vaganov; date, place not given: "Anatoliy Kuntsevich: 'I Do Not Discuss Orders.' 'Chemical' General's First Interview Since His Dismissal"—first four paragraphs are introduction]

[Text] The closer Russia comes to the point that the air force calls "the point of no-return," in this case to ratification of the Convention on the Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and on their Destruction, the more acute the squabbles in public and in private over this problem become.

One of the most important manifestations of the internal struggle within the top echelons of power was President Yeltsin's 7 April 1994 edict relieving Russian Academy of Sciences Academician Anatoliy Kuntsevich of his post as chairman of the Russian president's Committee for Convention Problems of Chemical and Biological Weapons. The edict contained the following wording—"for a single gross breach of professional duty." The president's press secretary Vyacheslav Kostikov interpreted this as follows: "The committee agreed to toxins being transported and stored in a major population center." However, it seems that, if this actually did occur, it was more of an excuse than the real reason. (Suffice it to say that Mr. Kuntsevich was ill at the time the edict was drafted).

The story linking Anatoliy Kuntsevich's dismissal with a "moral victory for the military-chemical dissident" Vil Mirzayanov and company is even less plausible.

Strangely enough, Lt. Gen. (Reserve) Kuntsevich does not seem to have suited certain structures within the

Russian Defense Ministry. And they are not the only ones. Whatever you say about Anatoliy Kuntsevich, his status as a top-class professional and his undoubted international prestige gave him a many opportunities for candor. It is extremely likely that someone thought that the committee led by Kuntsevich was too "extradepartmental." Your NEZAVISIMAYA GAZETA was told by a highly-placed official from this department, who asked to remain anonymous, that "there are more than enough people who are unaware of the problem but who want to head up this organization. Many people are attracted by the chairmanship, which holds ministerial rank. Moreover, it will be easier for 'competent' organizations to control such an incompetent person."

Vaganov: The specific wording of the presidential edict regarding your dismissal is pretty surprising for an official of your rank. Do you have any comment to make?

Kuntsevich: I would like to say right away that, in accordance with the old soldier's custom, I do not discuss orders from above.

Vaganov: Fine. Could you tell us how much of a surprise this was to you?

Kuntsevich: This situation can be regarded in different ways. I do not want to get personal. There is a Russian presidential edict which I am obliged to implement.

But I must say on the whole that the problem of chemical disarmament concerns very important and extremely sensitive aspects of our state's activity. Naturally a whole range of opinions arise when these matters are being decided. How can they be resolved so as to accord with national interests above all? On the other hand we have to act so that Russia does not "drop out" of civilized forms of communication with other states.

Vaganov: How did the Committee on Convention Problems begin its activity?

Kuntsevich: The Convention on the Prohibition of Biological Weapons was formulated way back in 1972. The USSR subscribed to it in 1975. However, no legal documents were adopted at the time banning the development of offensive biological programs in the USSR.

In February 1992 the Committee on Convention Problems of Chemical and Biological Weapons was set up under the Russian president, and 11 April that same year a Russian presidential edict appeared with the committee's direct participation aimed at ensuring Russia's fulfillment of international convention commitments in the sphere of biological weapons and banning the implementation in our country of any offensive biological programs. The committee was made responsible for supervising implementation of this edict's provisions. The matter was finalized in law. In my view, this was the committee's first major act, and it drew worldwide attention.

It was then necessary to discover forms and means of working that would make it possible to remove mutual suspicion and anxiety between Russia, the United States, Britain, and other countries in the sphere of biological weapons. We proposed carrying out a series of inspections. This approach of ours was put into effect in September 1992 in a tripartite—Russian-U.S.-British—joint statement, which also made provision for the principle of carrying out mutual inspections.

These inspections have gone ahead in 1993-1994. A joint group of U.S. and British experts and inspectors inspected four facilities in Russia. Russian specialists accordingly visited three installations in the United States and one in Britain. A real foundation developed for comparing our countries' scientific, technical, and industrial potential in this field with facts and figures in hand. Thus, we brought our relations to the point of possible quantitative juxtaposition and comparison. Today, a good working roundtable has formed at which any problems can be constructively discussed.

Vaganov: And this is the moment when you, one of the people who set up this roundtable, are unexpectedly removed from the chairmanship of the Committee on Convention Problems. It looks as though there is a negative opinion of your work in this post.

Kuntsevich: That has nothing to do with the committee's activity. I do not think that this decision was based on what you have said. The committee is not me alone. There are 57 people working on it today. By current standards that is a small collective, but it comprises eminent specialists. Perhaps that is my main achievement—that I succeeded in finding people who are professionally aware of the full complexity and multifaceted nature of the problems and really have an idea of the possible ways of resolving them without harming Russia's national interests and security.

Vaganov: What do you think are the main difficulties facing Russia in the sphere of chemical disarmament?

Kuntsevich: The most challenging problem is the problem of what is to be done with the Convention on the Prohibition of Chemical Weapons which Russia signed in January 1993. It concerns Russia's highest international and national interests.

No matter how my opponents reproach me for rushing to sign this convention, I categorically disagree with that. The negotiating process began back in 1980 or even earlier. Moreover, as for the history of this problem, Russia came to the negotiating table back in... 1868. It was then that the first legal document in the field of chemical weapons appeared in St. Petersburg—a declaration banning the use of poisoned bullets was signed.

Vaganov: To return to today's events....

Kuntsevich: We are in effect talking about one thing today—whether or not to ratify the convention.

Vaganov: What do you predict?

Kuntsevich: This is all pretty tricky. I spoke about it at the State Duma hearings 24 March this year. We have to square economic, financial, and technological potential with our commitments under this convention and determine the real priorities in disarmament. Russia's international political, moral, and ethical prestige is undoubtedly in the balance.

From the time when the committee was formed I always said that, for Russia to be able to join this convention, it was essential to create powerful international support for it, bearing in mind our current difficult economic and financial situation. This international support must undoubtedly come under our intellectual, scientific and technical, and organizational leadership. I am talking not about obtaining some kind of financial or technological handout but about creating a committed pool of support for Russia's chemical weapons destruction program—which is particularly important during the initial phase. In addition, previously my opponents tried via the mass media to present me as a rabid supporter of the military-chemical complex, dreaming of how to drag out the process of chemical disarmament and ridding Russia of the heavy military-chemical burden. However, to be fair I must say that of late my opponents have done a complete turnabout. They are now trying to persuade the public that Kuntsevich was allegedly in a hurry and impelled Russia to sign the Convention on the Prohibition of Chemical Weapons. I categorically refute that opinion and consider it unprofessional in every respect—from both the state, the political, and the general human viewpoints.

It is now being said that the committee chairman was developing pro-Western sentiments and upholding a Western line. But, pardon me for saying so, what strategic line should I have developed in the interests of my taxpayer? Would it really have been bad for the committee to try to obtain \$6 billion in aid (and the preconditions for that did exist)? I can say that the preconditions are still there today for us to obtain almost \$1 billion in foreign aid. Can that really be bad for Russia?

Vaganov: So, someone in the top ranks of the Russian leadership has decided that it is bad....

Kuntsevich: I do not think that this decision came from the top. However, there are obviously politicians and various currents that are trying to play this card in their own interests.

Vaganov: Now a very tough question: Where are the chemical weapons to be destroyed?

Kuntsevich: We have to be realistic about this: There is not a single component of the Federation today that would voluntarily accept chemical munitions for destruction on its territory. And few would even allow them to be transported across their territory. So we must design a system whereby these weapons will be destroyed right in the areas where they are stored. National unity has to be secured on this: All the other components of the Federation must not simply be left

as detached observers, especially since the timeframes for the safe storage of chemical weapons are ebbing away before our eyes.

The regions must join forces with industrial and entrepreneurial structures and set up a system of funds. And corresponding concessions enshrined in legislation by the State Duma are needed in order for regions where chemical weapons destruction facilities are located to obtain the requisite investment.

Vaganov: Following your dismissal, do you still have a real chance of influencing the destruction of chemical weapons?

Kuntsevich: I am a chemist by profession. In the more specialized sense I am a specialist in the destruction of toxic substances. I began studying this in 1958 right after graduating from the Academy of Chemical Protection. I will most likely now return to the Russian Academy of Sciences, where before my committee appointment I was working mainly on the recycling of intermediate products and toxic substances and on the conversion of production facilities.

In particular, I will do everything in my power to implement the idea of creating a system of funds to support the program for the destruction of chemical weapons. There are many people who are interested in this. But they want guarantees from the state, they want to be sure that they are involved not in a vain undertaking but in an important, promising job. And there are elements that they find very appealing. First, involvement in what is effectively a global project for the destruction of chemical weapons. In this connection—and this is the second point—the project has strong political "protection." Any authority—I mean any sensible authority—will do its utmost to reinforce this political "protection." Consequently, guarantees of stability—political and state—exist that will ultimately not only enable Russia to meet its international commitments under the convention but will also make it possible to rid Russian citizens and all mankind of the threat of one of the most insidious kinds of mass-destruction weapon.

Link to BW Program

944Q0309A Moscow KOMMERSANT-DAILY
in Russian 9 Apr 94 p 4

[Article by Viktor Zamyatin and Aleksandr Koretskiy: "'Kuntsevich Case' May Replace 'Mirzayanov Case': United States on Russia's Possession of Biological Weapons"]

[Text] Yesterday THE WASHINGTON POST newspaper, quoting an anonymous source in the Clinton administration, said that Russia continues to develop biological warfare agents—despite Boris Yeltsin's assurances to the contrary and the fact that the then-USSR signed the 1972 Convention on Banning Biological Weapons. The United

States, however, does not accuse Yeltsin personally. The Clinton administration believes that he is "not in the loop."

According to an anonymous source from Clinton's inner circles, the White House allegedly has "irrefutable proof that Russia has a biological warfare program." Specifically, according to the newspaper, the point is the existence in Russia of some "biological infrastructure of noncommercial purpose." According to the same anonymous source, information on the existence in Russia of a program to develop and produce biological weapons had been received from sources in the United States in Great Britain, including from a Russian scientist who immigrated to the United States last year. However, another anonymous source from the American White House, whose opinion THE WASHINGTON POST also quotes, believes that there is no proof to support such a sensational accusation. In his opinion, what may be meant here is the existence in Russia of "specialized equipment of nonmilitary purpose," which nevertheless ought to be dismantled along with the military one.

So far there is no reaction from Russia. It is interesting, however, that the scandalous newspaper item in the United States coincided with the resignation of Anatoliy Kuntsevich, the chairman of the Committee on Convention-Related Problems of Chemical and Biological Weapons under the president of Russia. Lately he had been Russia's "chief chemist," and many varieties of second-generation toxic agents had been developed with his direct participation. His functions included the development of a chemical weapons destruction program and monitoring its implementation (Moscow had always denied that it had biological weapons but nevertheless had a committee on its "convention" on the grounds of ensuring compliance with the 1972 Convention). The reason for Kuntsevich's resignation, given yesterday at a briefing by Vyacheslav Kostikov—"giving consent to transportation and storage of a serious consignment of toxic agents within the limits of a large city"—is questioned by everyone who is even minimally familiar with the chemical weapons problem. It is laughable to remove from the job a person, who in the past had sanctioned transportation and destruction of entire arsenals of toxic agents in densely populated areas of the Volga region, just for giving consent to carry out only part of this program.

An interesting suggestion came from one of KOMMER-SANT's competent sources, according to whom there is a connection between Russia being accused of continuing work on biological weapons and Mr. Kuntsevich's resignation (the assumption is that there has been a leak of certain information, which was the true reason for resignation). This assumption is indirectly supported by the fact that at the hearings in the former Supreme Soviet and in the State Duma Kuntsevich persistently understated the true size of Russia's combat toxic agents arsenal by a factor of seven or eight at a minimum (according to estimates by independent observers).

There is only one way, however, to counter Washington's accusations: The Yeltsin-Clinton joint statement, issued in Moscow in January, allows for the "possibility of mutual visits to facilities and holding meetings of experts in order to monitor compliance with the Convention on Banning Biological and Toxic Weapons."

Dismissal Criticized

94P50126A Moscow SEGODNYA in Russian
9 Apr 94 p 2

[Dmitriy Frolov article "Lateral Move: Generals Come and Go, Chemical Weapons Remain"]

[Text] General Anatoliy Kuntsevich, chairman of the Committee for Convention-Related Problems of Chemical and Bacteriological Weapons, has suffered a defeat. His dismissal by an edict of the president of the Russian Federation was arranged according to the new Russian traditions: The press knew about it before Kuntsevich's co-workers did. The formulation was also mysterious: "for a single gross violation of his labor responsibilities." Isn't the president giving us to understand that Mr. Kuntsevich all but unleashed chemical war? One way or another, the general, who at first ran the military-chemical complex but then took upon himself the responsibility for its destruction, turned out to be unsuitable.

Apparently, it is considered that the incident is thus closed. Vil Mirzayanov, who let the city and the world know about the existence of Russian binary weapons, can now relax: Lefortovo [prison] no longer threatens him. The moral victory of the "military-chemical dissident" is plain to see. As for whether the problem itself has been solved—that is still unclear: 40 thousand tonnes of chemical weapons [CW]—which is just what has been officially declared—as before have nowhere to go outside Russia, and must all the same be destroyed. Besides which, no fundamental decisions have been made about the use of more or less safe technologies for destruction of CW in Russia. One can hardly expect that just a few personnel shifts will help.

CWC To Be Ratified

LD2004163494 Moscow ITAR-TASS in English
1353 GMT 20 Apr 94

[By ITAR-TASS correspondent Anatoliy Yurkin]

[Text] Moscow April 20 TASS—Ratification by Russia of the Convention on Chemical Disarmament is designed to stabilize the situation in the entire world, said Lieutenant-General Anatoliy Kuntsevich, a full member of the Russian Academy of Sciences. He opened here on Wednesday the second international conference on chemical disarmament, "Moskon '94," with a presentation on problems of elimination of chemical warfare agents.

Kuntsevich said Russia now possesses the world's biggest stock of toxic agents. According to official data, it has accumulated on its territory over 40,000 tons of products by the military chemical complex, which is enough to poison every living being on the globe.

The issue of recycling chemical warfare agents is out of the scope of Russia's interests. Participants in the conference noted that introduction of imperfect technologies might create hotbeds of ecological tension not only on the sites of war gases elimination but also in other regions. Experience gained in this sphere by other countries, in particular by the United States, cannot be copied in Russia. Developments by Russian researchers are opposed by foreign experts just out of considerations of competition. Some Western theoreticians and industrialists insist that lewisite be incinerated, while Russian specialists suggest extracting highly-pure arsenic out of this hazard chemical agent.

Russian supplies of this valuable material used in making solar energy plants designed to replace atomic stations in the next century will somewhat squeeze Western arsenic producers on the world market. Thus, purely scientific problems raised by participants in the forum are acquiring a very different meaning.

Professor Vladlen Malyshev, adviser to the head of the Committee for Conventional Problems of Chemical and Biological Weapons under the Russian president, told TASS that "Moskon' 94" had drawn chemical researchers from many countries. In coordination with their colleagues from the Russian Academy of Sciences and producers, they are seeking ways of safest destruction of Russia's huge stock-piles of toxic agents. In doing this, the adviser said, we should first of all take into account humane ecological problems and national interests.

"At the same time, researchers and specialists of the military chemical complex understand quite well that ratification by Russia of the convention on chemical disarmament will stabilize the situation across the world, but this truth should also become an axiom for politicians, lawmakers and the public at large," Malyshev stressed.

Yeltsin Reaffirms Continued Moratorium on Nuclear Testing

*LD2604194294 Moscow ITAR-TASS in English
1847 GMT 26 Apr 94*

[By ITAR-TASS correspondent Boris Sitnikov]

[Text] United Nations April 26 TASS—President Boris Yeltsin reaffirmed Russia's adherence to continue the moratorium on nuclear tests, General Secretary of the Geneva Disarmament Conference Vladimir Petrovskiy said at a press conference held at the UN Headquarters today.

"During talks with the UN secretary-general at the beginning of April, President Boris Yeltsin had expressed Russia's adherence to continue the moratorium on nuclear tests which was initially declared by ex-Soviet president Gorbachev," Petrovskiy said.

Petrovskiy noted that similar steps taken by other nuclear states would considerably help the multilateral talks on concluding a universal nuclear test ban treaty, now underway in Geneva. He called "realistic" the conclusion of such a treaty by the end of 1996. He said that a draft treaty will be presented for consideration in June this year.

In this context, he said that participants in the disarmament conference welcome the decision adopted by the United States in March to extend the moratorium on nuclear tests until September, 1995 as an "important contribution to the creation of a favourable climate for talks." "It is important to acknowledge that for the first time not only the U.S., Russia and Great Britain, but France and China are also now taking part in the talks, which directly affect their nuclear interests," Petrovskiy noted.

Defense Ministry Says Strategic Nuclear Forces Underfunded

*LD2004092294 Moscow ITAR-TASS World Service
in Russian 1747 GMT 19 Apr 94*

[By ITAR-TASS correspondent Anatoliy Yurkin]

[Text] Moscow 19 April—The current level of financing the armed forces will leave Russia without nuclear weapons by the end of the century, Lieutenant General Yuriy Merkulov said at parliamentary hearings in the State Duma. The Russian Defense Ministry representative supported his conclusion by an analysis of the state of strategic nuclear forces. All the indicators are showing a negative tendency. Thus, according to him, the submarine missile fleet is being forcibly reduced, aviation regiments are not getting new bombers and the funds allocated are not enough to service the missile facilities of strategic missile forces.

Today's hearings at the State Duma Defense Committee "On the implementation of the USSR-U.S. treaty on reducing and limiting strategic offensive armaments and on concomitant problems" revealed the difficulties which Russia is encountering while implementing its obligations. It was noted, inter alia, that START-I has been ratified but has not come into force. Its implementation is linked to long-term operations aimed at eliminating weapons and to the volumes of funding.

According to committee chairman Sergey Yushenkov, today's hearings should be regarded as a preliminary stage of the START-II ratification process. In Yushenkov's view, it will soon be submitted to the State Duma for ratification. The U.S. side is interested in the results of the forthcoming examination. A group of U.S. Congressmen is expected in Moscow in May. The main

purpose of their visit is to ascertain the partners' attitude to the implementation by Russia of the treaty obligations for further reducing strategic offensive weapons.

Weapons Developer Tsytkov Reminisces on Nuclear Programs

94WC0051A Moscow *DELOVOY MIR* in Russian
4-10 Apr 94 p 15

[Weapons Developer Georgiy Tsytkov interviewed by Vladimir Gubarev: "Reflection of the Nuclear Age: Georgiy Tsytkov on the Fate of Nuclear Weapons Past and Present"]

[Text] I have been trying to interview Georgiy Aleksandrovich Tsytkov for 25 years. I think it was a few days before a gas flare was extinguished in Urtaulak that Minister of Medium Machine-Building Yefim Pavlovich Slavskiy gave permission to me, a correspondent for KOMSOMOLSKAYA PRAVDA in those years, to witness an experiment. "And now I will introduce you," he said, "to our main 'producer.' Take a good look at him, for a journalist he is a mine of information! He knows everything about weapons, but he won't talk about them. Bear in mind that I am permitting all subjects except 'products,' you have no right to go near that subject. But don't worry: You won't be allowed to anyway." Yefim Pavlovich laughed, apparently quite pleased with his joke.

A few minutes later I met Georgiy Aleksandrovich Tsytkov, chief of the ministry's most secretive chief administration. As it turned out, we established a good rapport. To be honest, I tried several times in recent years to strike up a conversation about weapons, but Georgiy Aleksandrovich always said no. And understandably so, for his assessments of various researchers, designers, events, successes, and failures could not be "purely personal"—he held too high a position in the "nuclear pyramid" that had formed not just in our country, but also throughout the world. To bear responsibility for a nuclear weapons program is too heavy a load, and he always has to be cautious. After all, people are people, and the comments of a chief administration director are too important. Moreover, it is hard to assess one's own work from the side, for Georgiy Aleksandrovich Tsytkov has been at the center of events from the creation and testing of the first atomic bomb to the present.

However, quite recently I nonetheless succeeded in conducting the much-sought interview. There was a good occasion for doing so: The birthday of Yuliy Borisovich Khariton is approaching, and I took advantage of it. Georgiy Aleksandrovich couldn't help but say some good things about Khariton. Then the discussion moved on to other subjects, although again, Tsytkov could not speak with a level of openness that would fully open many pages of the history of nuclear weapons. And he was probably right again on this score: The time has not yet come when it might be possible to tell all secrets to the

public. In both the past and the present, the development, production and testing of nuclear and thermonuclear weapons remain one of the most tightly guarded secrets of any state. And international treaties ban the proliferation of nuclear technologies—the world is too fragile and not as secure as some might think.

And so I present excerpts of my discussion with Georgiy Aleksandrovich Tsytkov. We talked only about the tip of the iceberg; the bulk of it remains in the depths of an ocean of secrecy.

Gubarev: When did you first meet Yuliy Borisovich?

Tsytkov: In 1948, when intensive efforts were under way to develop the first model of our nuclear weapon. I saw him at work, and he was energetic and demanding. He followed literally every measurement and carefully analyzed all areas of work. In general, Khariton was everywhere. At least that's the impression one got, and it was close to reality.

Gubarev: Where was that?

Tsytkov: In Arzamas. I went there and ended up in the sector that was intensively engaged in developing the warhead, and so Yuliy Borisovich and I immediately established working contact.

Gubarev: What exactly were your duties?

Tsytkov: To fine-tune the design of the first warhead in actual dimensions. Many parts were various laboratory models and so forth, and I was assigned to a group led by Zakharenkov. We were engaged in so-called "physical final design."

Gubarev: In the celebrated "green house"?

Tsytkov: It was white then.

Gubarev: Where the security was especially tight, with the lowest rank being captain, as I recall?

Tsytkov: That's right.

Gubarev: And Khariton was there all the time?

Tsytkov: Of course. He hardly ever left.

Gubarev: He was the director, a theoretician, was he not?

Tsytkov: That's incorrect. He was always not only a very talented theoretician, but also a very talented experimenter. He was interested in every detail, every experimental method. And for this reason his advice was always useful. He had an encyclopedic knowledge of nuclear physics, explosives, and metallurgy. It was simply amazing: His knowledge in all fields of science was so vast! I am not saying this for flattery, not because it is Khariton's birthday. It is the absolute truth!

Gubarev: But today many people in both the West and in our country write that the first atomic bomb was not our

achievement, that all the data were obtained by intelligence operatives, and that Fuchs, in particular, provided detailed information about the bomb.

Tsytkov: Yes, that's what they say, but I can't agree. I became convinced from my own experience that we had to work through literally every detail of the "product," and very carefully at that. Naturally, I did not know at the time, nor did most people, that Fuchs had provided any materials. We didn't read anything, and we worked out all the details from scratch, from "a" to "z." Maybe Khariton and Shchelkin read something. If Fuchs did pass something on, it was a general plan, but all the technology and details are incredibly complex. The verification methods, physical parameters, technology for making the most complex measurements and so forth—Fuchs did not pass on any of that, nor could he have! The general plan for the first American atomic bomb would have something else. Such data would be important, of course, especially for that time, but the development of our first model required the development of an entire complex of sciences and production, the acquisition of equipment and much, much more. At the time, we who were directly involved in the project thought that we were doing everything from scratch. We had no prompting.

Gubarev: How did it happen that you were immediately assigned to Zakharenkov's special group?

Tsytkov: I worked in the Ground Forces Engineering Academy where professor Georgiy Iosifovich Pokrovskiy was head of a department and laboratory. He was a very talented researcher in gas dynamics and demolitions.

Gubarev: As well as a very talented artist!

Tsytkov: That's right. And a very intelligent and kind man. And fortunately, I worked for him after graduating from the Moscow Higher Technical School. I was working on munitions. When they started selecting specialists for Arzamas-16, I got an offer to go there. Obviously, because I was already a demolitions specialist, and for that reason I was immediately assigned to Zakharenkov's group.

Gubarev: No doubt all that was happening seemed strange to you.

Tsytkov: Absolutely. We realized what an enormous task confronted the country—it was essential to end the Americans' monopoly on nuclear weapons, and so everybody worked at full capacity. Everybody without exception. We worked till two and four o'clock in the morning, ignoring our own interests; there was just one desire—to develop the atomic bomb as quickly as possible. Incidentally, we never mentioned it, except perhaps only in whispers, although everybody knew, of course, what we were doing. This, the work, is what was unusual. And the whole country was helping us. While it was sometimes hard to obtain equipment and various materials for

Pokrovskiy's laboratory, there we had a "green light." The work was interesting and enjoyable.

Gubarev: You are one of the few people present at the tests of the first atomic bomb. What did you do there?

Tsytkov: I was assigned by General Pavel Mikhaylovich Zernov to the operations group, which consisted of three people: Yegorov, Maslov, and myself. We made sure that preparations for the first test proceeded on schedule. I had responsibility for "scientific aspects of preparations," which is to say physical measurements, equipment, and preparation of the "product." Maslov was in charge of design, and Yegorov was in charge of experimental production. Pavel Mikhaylovich obviously saw me as a fairly good organizer, and that path ultimately led to become director of the Ministry of Medium Machine-Building and the Russian Ministry of Nuclear Power chief administration in charge of producing nuclear weapons. When I went to the test range, it happened that I essentially become the assistant to Igor Vasilyevich Kurchatov for all matters relating to coordinating the work of all divisions and so on. In addition to organizational work, I also participated in Zhuchikhin's group, which prepared the "product" detonation lines. We were also in the tower, prepared the control panel in the command and control facility and the detonation lines. We were supervised by Kirill Ivanovich Shchelkin.

Gubarev: The man who was "responsible" for the bomb and who detonated it?

Tsytkov: At that time he was neither a three-time Hero nor a corresponding member.

Gubarev: Were those good times? How do you look back at them?

Tsytkov: I think those years were exceptionally unusual. The work was interesting, important, and enjoyable. We knew that we were doing something very important and essential for the country.

Gubarev: Who stands out in your memory most? I know that you consider Zernov your mentor. What about the others.

Tsytkov: At the tests, Igor Vasilyevich Kurchatov. He was striking in terms of his energy, knowledge, and determination. You would look into his eyes and feel that some sort of radiation was coming from them. He had a stimulating effect on people. I probably have the strongest impression of Igor Vasilyevich at that time.

Gubarev: You met and worked with very many outstanding people. Tell me, for example, about Kirill Ivanovich Shchelkin. Unfortunately, little is known about him.

Tsytkov: He was a thorough researcher. Not only was he involved in theoretical research on gas dynamics and nuclear physics; he also knew how to "build bridges" to practical work. He was a magnificent experimenter and organizer. He was Yuliy Borisovich Khariton's first

assistant for nuclear weapons development. Unfortunately, he fell ill, left our work, and died shortly thereafter. It is said that he "burnt out in his work," and this fully applies to Kirill Ivanovich Shchelkin.

Gubarev: What happened to you after the first bomb test?

Tsytkov: I left Zakharenkov's group and was offered a position in the research department as a deputy to Yekaterina Alekseyevna Feoktistova. She was a very famous scientist and demolitions specialist. In that period I was engaged in the first research on magnetic commutation [kommulyatsia], which had been proposed by Andrey Dmitriyevich Sakharov. This refers to the direct conversion of the energy of a blast into magnetic energy. We conducted the first experiment. There were no instruments, and we wanted to convince ourselves that we were on the right path. Was it really possible to convert blast energy directly into magnetic energy? I proposed that we set up simple neon lamps. The first experiment was conducted in April 1952, and it was very successful—the lamps turned on. Sakharov's idea was confirmed. Back then this was all new; today this field has been developed and new experiments are under way. And only recent the two nuclear centers of Arzamas-16 and Los Alamos began working together.

Gubarev: I can confirm that the experiment was successful—I was there!

Tsytkov: Back then we were just getting started, taking the first steps. We continue to lead in this field, just ahead of the Americans.

Gubarev: And after that?

Tsytkov: A new "facility" was being set up in the Urals.

Gubarev: Hold on! You mean you were involved in developing the hydrogen bomb?

Tsytkov: You have good information. Indeed, I was also involved in developing the first hydrogen bomb and took part in the tests.

Gubarev: Was the detonation frightening?

Tsytkov: No. I was in an emplacement from which the detonation was controlled. It was 10 kilometers from the epicenter. All the effects were known, and we felt them. Still, my main impression is of when we emerged after the shock wave passed, and we saw an enormous red cloud over us. It hung over us, frightening and unusual. We got in the cars and left, you couldn't stay there.

Gubarev: Did you take part in essentially all the tests?

Tsytkov: I once tried to count them, but I couldn't. One hundred or 150, maybe 300—I don't remember. I need to take a look at the lists of participants in each experiment some time—they have certainly been preserved.

Gubarev: What took you to the Urals, to Chelyabinsk-70?

Tsytkov: An accident, you could say. I went to Moscow, dropped in at the ministry, where we were working on a new piece of equipment, and I ran into Kirill Ivanovich Shchelkin. He immediately said that he wanted to offer me a position as his first deputy. "Agreed?" he asked. "I would follow you to the edge of the earth!" I answered. And that is how I was first transferred to the Urals.

Gubarev: Why was it necessary to create a second nuclear center?

Tsytkov: Nikita Sergeyevich Khrushchev was Central Committee First Secretary at that time. And he felt that a backup for Arzamas-16 was needed. You will recall that not everything was calm in the world at that time. It was 1955, the height of the cold war, and there was a real danger that it would become a hot war. It that event, the "facility"—that is, Arzamas-16—could be destroyed, and the country would lose its nuclear weapons developers, there wouldn't be anyone to service the weapons or designers to supervise their maintenance, and so forth. I think that is why the decision was made to establish Chelyabinsk-70. Secondly, any monopoly is harmful; without competition, a field can become stalled. And both research and design work go far more slowly in the absence of competition, as we said at the time. And indeed, once we had two institutes, there began a constructive competition of ideas, methods, and ways of solving various design problems. I think the appearance of the center in the Urals was of enormous benefit to the development of the nuclear weapons complex.

Gubarev: I would now like to ask you, as director of the chief administration in charge of both federal centers, what are the virtues of each one? And naturally, what shortcomings at Arzamas-16 and Chelyabinsk-70 do you see today?

Tsytkov: Of course, Arzamas-16 has more traditions, its physical sector is more developed, and it is better equipped. The two centers probably have equal capabilities with respect to gas dynamics. Experimental production—that is, plants—is more advanced at Chelyabinsk-70, simply because it was established later, and hence the equipment is better. The theoreticians are close in terms of skills and talent. However, there is one difference: Chelyabinsk-70 has a younger staff, and so in the early years one sensed fervor, vigor, a search for unusual solutions. A certain conservatism at Arzamas-16 began to affect its work, while in the Urals, as is characteristic of youth, bolder decisions were sought and found. I don't want to talk about shortcomings, because it is my job to rectify them! Moreover, in my view, we ourselves can sort our problems out better and faster, excuse me, "without the help of the public."

Gubarev: So secrecy plays a role?

Tsytkov: How could it be otherwise?! We're not accustomed to giving interviews.

Gubarev: Georgiy Aleksandrovich, in what way do modern nuclear weapons differ from the ones you developed in the early 1950's?

Tsytkov: The difference is enormous, very great progress has been made! I won't go into any design features. I will only say that given equal yields, weights and volumes differ by a factor of tens. The automatic equipment that controls detonation has changed sharply and unrecognizably! For example, the automatic equipment that sends signals to the warhead used to weigh 300 kilograms, while today it weighs 150. That's the kind of progress that has been made! The element base has changed, and our scientists and designers have made an enormous contribution to the development of this field of science and technology. Not just in nuclear hardware, but in the field as a whole. So the differences are very great. Not to mention the wide assortment of "products" that perform strictly defined functions. The progress is apparent not only in figures; one only need visit the Nuclear Weapons Museum at Arzamas and Chelyabinsk and then compare what you see with the weapons that are sometimes shown on television. You don't have to be a specialist.

Gubarev: Why so many weapons? I understand that the politicians demanded new projects from you, but you should have understood that such numbers of nuclear weapons were unnecessary.

Tsytkov: I didn't have that problem, since we had little information. But there was real competition with a certain adversary across the ocean, to which we did not have a right to fall behind in technical terms. For example, we learned that the Americans were developing some sort of antimissile defense weapons. Were we not obliged to take appropriate steps? We understood that if we did nothing, our missiles wouldn't reach them, and hence they would acquire military superiority. The same applies to naval weapons and other types. That concerns types. As for the numbers of warheads, I honestly admit that I didn't even know; nothing was said of this to us the developers, everything was decided "at the top." So nuclear weapons developers are not to blame for "nuclear excesses."

Gubarev: The following question is logical: What is nuclear disarmament, in your view?

Tsytkov: If it is to be carried out properly, we have to not only dismantle the nuclear warhead, but also convert the plutonium and uranium to a state in which they cannot be reused in weapons. Then you can talk about complete disarmament. But I don't think we can do that as yet, since the situation in the world is complex and dangerous. There are many so-called "threshold countries" that could start testing and developing nuclear weapons. They are well known. They may not be able to develop sophisticated "products," but they are fully capable of "primitive" ones.

Gubarev: What is a "safe" nuclear weapon?

Tsytkov: To talk about it, I would have to reveal the design, and I don't want to do that. So I will confine myself only to some general aspects. A "safe" nuclear weapon rules out the possibility of nuclear detonation in any accident, by any operator error, in a fire, or when being transported. That was the first stage. The next one is to develop designs that cannot disperse plutonium. It is very dangerous, and everything possible is being done to make sure this never happens under any conditions.

Gubarev: I saw how a train car holding a container built up speed and then smashed into a concrete wall. But no scattering occurred?

Tsytkov: That was just one of many tests. We are trying to ensure the full safety of our "products"—it's one of our main tasks today. Fortunately, we have many years of positive experience—we have had no Chernobyl-type accidents with weapons. Unfortunately, the same cannot be said of the Americans.

Gubarev: When will there be real nuclear disarmament?

Tsytkov: You're asking a bad question.

Gubarev: Why?

Tsytkov: I think that nuclear weapons should exist. And they will. By treaty, we and the Americans will both have 3,500 warheads in the early 21st century. So nuclear weapons are going to stay. And 3,500 is a lot. The country's self-defense system requires that we retain a certain number of "products."

Gubarev: Have you ever thought that nuclear weapons would be used sometime?

Tsytkov: We have always felt that our country's weapons are intended only for a counterstrike. No one in our country has ever thought that we are the sort of "aggressors" and "nuclear monsters" capable of launching a first strike. Nothing of the kind! And we worked as hard as we did, forgoing a lot of things in life, only because we knew that the defense of this country and our motherland was in our hands. We understood that policy.

Gubarev: If you had to start life over again, would you go into this field?

Tsytkov: Absolutely! I am still happy that I was able to enter this branch of science. I have always been an "arms-maker," I found it interesting, and, finally, each of us should regard himself as a defender of the fatherland. That is real patriotism, if you please. As a youth I dreamed about becoming an officer, I wanted to enroll in a tank academy. But they didn't take me right out of school, and then I developed vision difficulties. And so I wound up in the military department at the Moscow Higher Technical School, at least close to the army. I became a munitions specialist. Life was hard for our generation, but we spared nothing—not even ourselves—for the country, for the motherland. If you don't

know that, if you don't feel it, it is impossible to understand why and how we developed nuclear weapons in such a short time.

SEGODNYA Article on Launch-on-Warning Strategy

94WC0050A Moscow *SEGODNYA* in Russian
30 Mar 94 p 9

[Article by Valeriy Yarynich, candidate of military sciences: "Nuclear Strategies and the Control Factor"]

[Text] It is gratifying when from time to time our press publishes articles like that of V. Belous on the nuclear strategy of Russia (*SEGODNYA*, 9 February 1994). It is not even a matter of the content of the article, with some of the positions of which I do not totally agree. It is something else that is gratifying—our public is getting a greater opportunity to know and consequently, perhaps, to influence the resolution of vitally important and costly tasks. The time is receding into the past when fundamental decisions on questions of nuclear strategy and national security were the responsibility only of a closed military-political elite.

There is no need to fear that the involvement of independent experts and simply interested persons in this process will accidentally open up something that is truly forbidden—this can always be avoided. Moreover, in this connection the area of nuclear arms has a unique nature dictated by the absurdity of the unleashing of a nuclear war. In my view, this permits and even demands much greater openness than in the area of conventional arms.

In the mentioned article, V. Belous covered the strategies for the use of nuclear forces rather broadly and showed their dependence on the structure of the triad and the basic technical parameters of the weapons. But such an important factor as control plays an extremely important role precisely in the question of strategies for use. The possibility of implementation in the event of the necessity of a launch on warning [*otvetno-vstrechnyy udar*] or launch under attack [*otvetnyy udar*] (OVU and OU, respectively) depends to a decisive degree on the structure and characteristics of the control system. The author is correct when he speaks of significant inertia in the process of the development of strategic nuclear forces. This also applies fully to the control system—grouping of command posts of all levels, communications network, and complex with the corresponding computer facilities. The expenditures for them are commensurate with the outlays for the weapons themselves, and hence there must be close coordination of questions involving control, the combat capabilities of the weapons, and the means of using them as a unified whole.

If one analyzes the strategy for the use of the strategic nuclear forces from the position of control, then the following may be noted: It is obvious that there are no and in the future will not be any particular difficulties with the command and control of a first nuclear strike if,

of course, we are forced into it. I share the point of view of V. Belous about the theoretical admissibility of such actions on our part under extraordinary circumstances, although the determination of the conditions under which the use of nuclear weapons may somehow be justified is a very complex and delicate problem. In any event, in this point the new Russian military doctrine (with all of its other shortcomings in a number of other questions) appears more logical than the previous declaration that we would not be the first to use nuclear weapons. In my view, that declaration did not have any practical value for one simple reason: Any "right-thinking" potential aggressor cannot in his plans for attack bet on such promises by the potential victim; he is obliged to count on the worst for himself. My only objection to the author in this matter from the position of command and control is that submarines and mobile ground complexes are no less suitable for a first strike than are missiles in silos.

As for the concept of a launch on warning, here everything appears substantially more complex. Yes, today and in the foreseeable future the United States may rely on it along with other versions of the use of its nuclear forces. For Russia, such a strategy appears quite doubtful even now and all the more so in the future. The reasons are well known: The disintegration of the unified network of the missile attack warning system (half of the ground radar is now in the near abroad); our leadership has less time than does that of the Americans to make a decision (actually no more than 2-3 minutes) in the event of a strike from submarines in the Norwegian or Mediterranean Seas; the obligation of the president of Russia to coordinate his actions in an extreme situation with the leadership of Ukraine, Kazakhstan, and Belorussia, etc. But besides the "perforated" missile attack warning system and the rigid time limits, there are several other reasons that put into doubt the correctness of nuclear strategy relying on the concept of a launch on warning.

In the first place, the tendency in the reorganization of the Russian strategic nuclear forces in accordance with the START II Treaty is such that by the beginning of the next millenium the predominant role (in terms of the number of warheads) in their structure will begin to be played by the most survivable components—submarines and mobile land-based missiles. Such a structure of forces will be less able than today's structure to justify the need for haste in retaliatory actions. In other words, the calculated capacities of launch on warning and launch under attack will tend to converge.

Secondly, as V. Belous justifiably notes, the realization of the agreement on the mutual nonaiming of missiles leads in practically any version to abandonment of the strategy of launch on warning. The deeper is the reciprocal lowering of the readiness of the nuclear forces of the sides, the more time will be required for its prompt restoration in a crisis situation. It is difficult to expect the participants in such a sprint to reach the finish line simultaneously. And since the time limit for reflection is already used up today, delay by one side of

even a few minutes will automatically put it in the category of a launch under attack. To be specific, as a result of all that has been said, today Russia essentially already finds itself in this framework and the concept of launch on warning is becoming more and more theoretical, although it does maintain its previous deterrent influence.

Such an objectively existing reorientation of the axes of nuclear strategy does not appear to be accidental. It is possible that in our time the general change in strategic thinking, the agreement with respect to a common scale of human values, and the development of ties dictate a renunciation of equilibrium on the razor's edge. In principle, the very idea of an immediate and impulsive nuclear reaction to the information from technical means of warning (even if they are "absolutely" reliable) seems absurd. What is needed is a second, insuring basis that in a hypothetical crisis situation would give the right to make a mistake to those people who are responsible for the decision. The strategy of launch under attack is such an insuring support.

But here is what is interesting. Following simple logic, we will immediately come to this question: If the grouping of nuclear forces and the system for its control, being oriented toward the concept of launch under attack, guarantee reliable deterrence, then why does one need enormous expenditures to support even the possibility of a launch on warning? Of course it is impossible to separate these things completely, and it is not necessary. Even under the concept of a launch under attack, for example, the role of the missile attack warning system will remain important, in particular, for the issue of warning information and identification of the aggressor country. Nor does the task of making decisions and sanctioning disappear. But there is a question, as they say, and one must seek to answer it. In any case, the problem of the changeover to a strategy of launch under attack as the primary basis for deterrence appears pressing today. This change cannot be accomplished immediately. Ideological and technical studies will be required on a national scale as well as at the international level, because by its very essence nuclear deterrence has a bilateral (multilateral) nature. Let us briefly examine the main difficulties and tasks on this path.

The concept of launch under attack was always criticized and is being criticized now under two main criteria: The low retaliatory power (especially later on with deep cuts in strategic offensive weapons) and the large probability of the complete failure of retaliation because of the preventive decapitation of the command and control system. The scope of a newspaper article does not allow a full illumination of this aspect and therefore we will limit ourselves to a conclusion. The whole essence of the question is how in the case at hand to deal with the notions of "little" and "much." Formerly, each side made such an assessment independently, although from a mathematical point of view it is a matter of the risk of the partner and it would not be a bad thing to consider what he thinks about this. I personally assume that if the

American "partner" were suddenly to plan a surprise nuclear strike against Russia, he would be deterred by the possibility of the retaliation, let us say, of 10-15 warheads with a probability of 0.1-0.2. Of course, these figures are taken as an example, but they make one think. Just recently, closed as well as open scientific investigations demonstrated the necessity of a launch under attack using several hundred warheads with a "guaranteed" probability. (One must assume 100 percent!?)

Such considerations could appear scholastic if behind all of this were not specific structures and levels of nuclear forces, groupings of command posts, and automated systems for control and communications, that is, a great deal of public money. I think that it is practically impossible to achieve a calculated probability of retaliation at a level higher than 90 percent: We lack the means to create such a system of command and control. Fortunately, it is not necessary to do this. Magnitudes of 0.6-0.7 will be more than adequate for deterrence, which appears more realistic even under the possibilities that we have today and gives a certain amount of confidence in the reasonableness of the switch to the concept of launch under attack.

Besides the indicated general assessment, a change to the concept of launch under attack will also require an analysis of the controllability of each component of the prospective structure of the Russian nuclear forces. And here a very voluminous and complex task comes on the agenda. By 2003 half of all nuclear warheads will be on board submarines. But the naval component of the Russian strategic nuclear forces is significantly harder to control than the Strategic Missile Forces. It turns out that we are undertaking a drastic reduction of those forces that have the most survivable and operative command and control system, and at the same time we are increasing our reliance on submarines, although it is well known what a complicated technical problem it is today reliably to deliver an order to a great depth under combat conditions. Our unprotected transmitting radio communications centers in the superlong-wave band are essentially the only means that we have to resolve this task but they substantially more vulnerable to conventional weapons than are analogous systems in the United States. All of this means that after the realization of the START II Treaty, with apparent external parity of forces, actually the power of our strategic nuclear forces will be substantially less.

There can be only two ways out: Either do not reduce the Strategic Missiles Forces or resolve the problem of dependable control of the naval component. Since it is impossible to stop the process of nuclear disarmament, the second choice remains. The fact of the existence of the problem of the control of submarines is the result of many years of underestimating this component, whereas primary attention was always given to the development of the missile forces. For this reason, as of today the Strategic Missile Forces have been most successful in resolving questions in the guaranteeing of control under the conditions of launch under attack. The technical

work that the missile forces have done in several projects could also be utilized to resolve the problem of getting commands to deep submarines. This would make it possible to accelerate the establishment of a unified command of the Russian strategic nuclear forces, which appears expedient to ensure more nearly optimum use of nuclear weapons under the conditions of deep cuts in them.

The changeover to the concept of launch under attack is not limited to military-technical and economic aspects. Also required will be the continuous joint work of the "potential enemies" to support mutual confidence in the preservation of the deterrence factor from both sides. The deep cuts in arms will dictate such unusual cooperation. And here it is insufficient merely to demonstrate the weapons themselves, but it is also necessary to show the possibility of their use in the event of the need to do so. This applies in particular to the version in which both sides consider the strategy of launch under attack to be the main support of deterrence.

Showing our deterrent capability to the opposing side presupposes a certain degree of openness not only in nuclear arms themselves (which to a considerable degree has already been achieved today) but also in systems for their command and control. It is obvious that two extremes are unacceptable in this process: On the one hand, one cannot totally reveal the structure and characteristics of the control system, for this can increase the provoking aspect and threaten national security; but, on the other hand, it is also inadmissible to close this area completely, because lack of knowledge can gradually give other countries the illusion of Russian nuclear impotence, which is fraught with unpredictable consequences in a crisis. Apparently, the optimum solution is somewhere in the middle.

It appears that in the interest of supporting strategic stability it would be reasonable, along with the exchange of information on nuclear missiles between the sides, to begin a dialogue in the area of their command and control. The objective of such a conversation is to support confidence in the mutual capability of providing for nuclear deterrence under the conditions of sharp cuts in arms and taking into account the other big changes taking place in the world. This will be particularly pressing in the transition to the strategy of launch under attack. In the final analysis, such an exchange must lead to the development of a methodology for a joint quantitative assessment of the minimum necessary level of reciprocal deterrence. This would make it possible to reach an agreement on deeper reductions of nuclear arsenals and to save substantial resources.

In the light of everything that has been said above, it appears logical for both nuclear superpowers to put their main emphasis on the concept of launch under attack as the most "humane" concept that corresponds to today's way of thinking and to simple logic. It is possible that launch on warning and launch under attack could even exchange places in the combat documentation at the

command posts of the strategic nuclear forces. That is, launch under attack would become the basic concept and launch on warning an insuring concept.

In conclusion, I would like to say that the singularity of the problem of nuclear strategies lies in the fact that all of their variants will continue to coexist, and this connection I agree with the arguments of my respected colleague Vladimir Belous.

Shift to Sub-Based Deterrent Questioned

PM2604154194 Moscow PRAVDA in Russian
26 Apr 94 p 3

[Article by Candidate of Technical Sciences Gennadiy Ivanov, chief of a separate laboratory at the All-Union Scientific Research Institute of Experimental Physics, under the "Reaction" rubric: "Listen to a 'Three-Star' Hero-Academician"]

[Text] The choice of ways to build defenses has always numbered among the particularly crucial tasks of state management. Therefore the interest of political scientists and experts in the recently adopted decision on structural changes to the composition of the national nuclear triad is understandable. For, under the treaty signed a year ago on reducing and limiting strategic nuclear arms (START II), our primarily "land-based" triad could turn into a "sea-based" one.

Since the polemic over this part of the treaty is continuing, it would be interesting to know the opinion on this score of Academician Yu. Khariton, one of the creators of the Russian "nuclear shield." Although the well known scientist has left the immediate leadership of the All-Union Scientific Research Institute of Experimental Physics (city of Arzamas-16), he continues to work in this "field." After asking him to familiarize himself with the rubric "Disarm, But Sensibly" in PRAVDA 16 February this year, we learned his opinion of the questions touched upon there. Two points stood out particularly clearly.

First point. Yuliy Borisovich showed concern at the reorientation of our nuclear triad from "land" to "sea"—as prescribed by START II. He is unable to find a proper explanation for such a decision and is not in possession of proper arguments in favor of that decision.

Second point. In his opinion, under the changed conditions of trust between the nuclear partners questions of the security of nuclear weapons must evidently take priority. Precisely this must be taken into consideration when choosing the carriers of such weapons and their basing modes.

Broadly speaking, security means, above all, protecting the environment and man from excessively dangerous technologies. In this connection the academician touched on the danger of an accident involving a nuclear-powered submarine stuffed with dozens of dangerously explosive solid-fuel missiles carrying hundreds

of nuclear warheads. He emphasized the catastrophic nature of the consequences for nature of such an incident. The use of solid-propellant rockets with the U.S. space shuttles is also, in his opinion, a risky technical decision. The deaths of several U.S. astronauts have already confirmed this.

Festivities marking the academician's 90th birthday took place recently at the All-Union Scientific Research Institute of Experimental Physics. He is now honorary director of this institute. His opinion on the future of the national nuclear forces should be heeded, for it has already repeatedly been of tremendous benefit. But, so we understand, this time he is not, for some reason, being involved in resolving the problem of nuclear disarmament. And yet, of our scientists who developed nuclear weapons, Yuliy Borisovich is now the only "three-star" hero-academician.

Cruise Missiles Launched as Part of Air Force Exercise

LD2204192894 Moscow Mayak Radio Network in Russian 1830 GMT 22 Apr 94

[Text] Russia's air force is holding command post exercises. As part of these, cruise rockets have been launched against aerial targets on one of the long-distance aviation's test ranges. The execution of the missile launches was described as excellent. They were executed by a TU-22M long-range bomber crew led by Lieutenant Colonel Vladimir (Melikhan) and Major Vladimir (Nikitin). This information came from the Russian air force's press center.

Siberian Chemical Combine May Stop Production

LD2404065294

[Editorial Report] Moscow Radio Rossii Network in Russian at 0400 GMT on 24 April carries a 2-minute report by Mayak correspondent Andrey Murashev from Tomsk region on the situation at the Siberian chemical combine, which "is fraught with catastrophic consequences."

He says: "This is how the staff of the enterprise has described the situation. In a letter addressed to Prime Minister Viktor Chernomyrdin and Atomic Energy Minister Viktor Mikhaylov, it has stated that work on a defense order and production of electric power and heat bring only losses to the enterprise. On 1 April, the debt for weapon-grade plutonium was 22 billion rubles, and for energy sources produced, 11 billion rubles. The enterprise developed a conversion program, which is being implemented at present and which includes, for example, the production of low-grade uranium for nuclear power engineering. But the payment for these orders will be made only at the end of the year."

Murashev says that due to the shortage of money, the combine cannot buy raw materials or pay wages to its staff, which demands that the Russian Government clear

its debts and provide the long-promised credits. He points out that Russia's international commitments with regard to nuclear disarmament could be affected if the combine were to grind to a halt.

The correspondent went on to recall that the Siberian chemical combine was a major enterprise of nuclear production. "Two out of three nuclear reactors in the country that work for defense are situated here, in the closed town of Seversk, formerly known as Tomsk-7."

CW Disarmament Conference

Conference Opens in Moscow

LD2104080994 Moscow 2x2 Television in Russian 0630 GMT 21 Apr 94

[Text] The second international conference "Moskon '94" on the problems of chemical weapons has opened in Moscow. It is being held by the Russian Academy of Sciences and the Russian Committee for Conventional Problems. (Sergey Bogdanov), chairman of an international commission for preparing the implementation of the convention, told journalists that recruiting personnel and providing special equipment will cost Russia \$18 million.

According to experts, within 10 years over 110,000 tonnes of toxic substances are to be destroyed in the world, including 40,000 tonnes belonging to Russia and 30,000 to the United States.

Reprocessing Technologies Discussed

LD2204100494 Moscow ITAR-TASS in English 0916 GMT 22 Apr 94

[By ITAR-TASS correspondent Anatoliy Yurkin]

[Text] Moscow April 22 TASS—"Russia has absolutely unique technologies for the complex reprocessing of chemical warfare agents and nuclear wastes, which have no match in the world," member of the Engineering Academy Mikhail Sviderskiy said on Thursday, addressing a plenary meeting of the second international conference for chemical disarmament—"Moskon '94."

According to Sviderskiy, Russian scientists have developed and experimentally tested several production cycles for the complex reprocessing of chemical warfare agents and nuclear wastes. This allowed them to obtain new materials with quite unusual characteristics which, in the opinion of the expert, may be used in 21st-century technologies.

Sviderskiy said that the simultaneous reprocessing of chemical warfare agents and nuclear wastes would allow scientists not only to obtain materials with unique properties, but also to utilise huge quantities of depleted uranium accumulating on the planet. In order to process it into valuable products, Sviderskiy believes, "we need an international programme involving all the advanced countries. Excessive amounts of nuclear wastes have

been accumulated in the United States, France, Britain, Germany, and also Russia. They are just as dangerous for the planet's ecology as the existing stockpiles of chemical warfare agents."

ITAR-TASS was told by Academician Valentin Fedorov, who is also attending the conference, that chemical disarmament should not only make up for the spendings made on the production of chemical warfare agents, but should also yield profits to the Russian treasury. In his opinion, only the reprocessing of lewisite into extra-pure arsenic will yield Russia profits running into many billions and will provide top-quality raw materials for new technologies in the most advanced sectors of industry. "We must not forget," the scientist stressed, "that Georgia, our traditional supplier of arsenic, has stopped selling it to Russia. In the meantime, the need for pure materials of this group is growing. For instance, the United States will need more than 100 tonnes of extra-pure arsenic by the end of this century only for its electronic industry. Other countries are also badly in need of arsenic."

Chemical disarmament, based on technologies proposed by Russian scientists, Fedorov believes, meet the national interests of Russia. "We must rely on our own forces, and we have no right to wait for somebody else to resolve our Russian problems," he stated.

Conference Closes

MK2104105094 Moscow NEZAVISIMAYA GAZETA
in Russian 21 Apr 94 p 2

[Andrey Vaganov report under the Forum rubric: "Chemical Arms Should be Destroyed. The Whole Question Is How, Where, When?"]

[Text] The International Conference on Chemical Disarmament is winding up its work in Moscow today. Its organizers are the Committee for Conventional Problems of Chemical and Biological Weapons under the Russian Federation president, and the Russian Academy of Sciences. This is the second such international meeting since Russia signed the convention banning chemical weapons in Paris a little more than a year ago. As of today the convention has been ratified by five states—Sweden, Norway, Fiji, Mauritius, and the Seychelles. In order to go into effect the convention should be ratified by at least 65 states (this is expected to happen this summer).

In the words of Academician Anatoliy Kuntsevich, who spoke at the conference and who until recently chaired the Committee for Conventional Problems, it was clear right from the start that implementation of the convention posed Russia a number of difficulties, primarily economic ones. Russia, nevertheless, intends precisely to act on its obligations. Our country's withdrawal from the convention would in fact mean scrapping the convention, with tragic consequences for all humanity.

Academician Kuntsevich also stated for the first time that Russia, without waiting for the convention to go into force, had already started unilaterally converting to other uses the available technical potential for the production of chemical weapons (this in particular true about the facilities in Volgograd Oblast). The equipment has been partially destroyed and scrapped at factories producing the saman and sorin toxic agents.

The keynote of many reports at the conference was the need to reach a public and federal accord on the destruction of chemical weapons in Russia.

TRUD Says 'Critics' Excluded

PM2204142194 Moscow TRUD in Russian
22 Apr 94 p 2

[Oleg Zolotov report: "No Reduction in Secrecy"]

[Text] "Moskon '94," the Second International Conference on Chemical Disarmament, ended yesterday in Moscow. It had been opened by Academician Anatoliy Kuntsevich, who only two weeks ago headed the Russian president's Committee for the Conventional Problems of Chemical and Biological Weapons.

As expected, the organizers did everything possible to exclude critics of official chemical disarmament programs from the forum. However, three dissident scientists—namely Lev Fedorov, Vladimir Ulev, and Vladimir Petrenko—managed to get in, in the capacity of unofficial guests. But only representatives of the press were able to discover their point of view: All three were refused a place on the rostrum. Vladimir Ulev said in conversation with TRUD's correspondent that this was dictated by the Russian authorities' wish to dodge a decision on fundamental questions. In his words, whereas our American partners are attentively monitoring the quantitative indicators of the destruction of toxic substances, the methods of destroying these substances, which themselves present a serious threat to human beings, are still being kept secret and are monitored by no one.

The reasons for Kuntsevich's dismissal from the chairmanship of the president's committee are still unknown. Many link it to the fact that the academician's stance on chemical disarmament questions had started to encroach on Defense Ministry interests. His approaches required additional expenditure, and this displeased many people. As for Kuntsevich himself, he said in conversation with TRUD's correspondent:

"I do not know why I was fired. As an ex-military man, I refuse to comment on the fact."

UK Television Carries Report on Red Mercury *LD1504143094*

[Editorial Report] London ITV Television Network in English at 2000 GMT on 13 April in its "Dispatches" program carries a 45-minute report entitled "Pocket Neutron," in which correspondent Gwyn Roberts reviews the findings of an 18-month investigation he conducted into red mercury, a chemical compound allegedly used by the Russians to develop a smaller, more efficient nuclear warhead.

The program opens with various shots of a border crossing in Como, northern Italy, and goes on to include a brief interview with Italian Magistrate Romano Dolce on the smuggling of red mercury through Italy. Asked about its final destination, Dolce, speaking in Italian with English subtitles, says: "Israel, Iraq, Iran, South Africa, and the rest of the world. Even Western countries like the United States seem interested in red mercury. Why should it be top secret? Why this silence? Why this fear of talking about it?"

Brief clips are then shown of Vladimir Zhirinovskiy during his visit to Serbia in February this year, followed by various street scenes in Moscow. Roberts then introduces a recording of an interview he conducted with an unidentified Kremlin official who, he says, has access to full government intelligence.

Roberts asks: "What proof do you have that there is such a substance?" The official replies: "The hardest evidence is the report prepared by the first chief directorate of the KGB. This report was prepared especially for Boris Yeltsin. The conclusion of this report is that there is no doubt that red mercury exists."

Roberts asks: "What military applications of red mercury are listed in the KGB report?"

The official states: "The production of fuses of high precision for conventional bombs. The production of fuses for nuclear bombs. The production of military equipment coating to avoid radar detection, production of warheads for self-guided missiles of high precision."

Asked whether red mercury represents new technology, the official replies: "I think it does." He goes on to say that Iraq, Libya, Israel, and South Africa all wish to purchase red mercury because they all want nuclear weapons.

Roberts is then seen at the Moscow metro where he meets an unidentified former nuclear chemist who worked at a secret plant in the Urals. They are then seen in an apartment where the chemist is interviewed. Roberts asks why everyone denies that red mercury exists. The chemist replies: "Because of reasons of secrecy." Roberts asks: "Why should they want to keep it secret?" The chemist says: "Because it is the latest technology. If it is available to the Third World it may be a serious danger to existing order."

Still photographs are then shown of containers labeled RM 2020, followed by clips of diagrams of how red mercury can be used and a government document on the existence of the substance. A person described as the head of the Promocology company exhibits what purports to be the raw material for RM 2020. Scenes of the Moscow White House siege of 1993 are then shown.

Roberts then interviews an unidentified military scientist in Moscow, who he says worked as a nuclear physicist producing RM 2020 for five years.

Roberts asks: "Why is red mercury such a mystery?"

The scientist replies: "The fact is that it is the latest technology which allows an atom bomb to be made very simply."

Roberts asks: "So you are saying that with red mercury and nuclear materials an atom bomb could be easily assembled by Third World countries?"

The scientist replies: "Yes, that could happen."

Asked how red mercury would be used, the scientist states: "It can reduce the critical mass and increase the power of the explosion."

The program continues by showing extensive shots of the nuclear research center at Dubna, including close-up clips of the accelerator and other equipment, followed by footage of the military scientist meeting with British nuclear expert Frank Barnaby. The program then shows U.S. nuclear expert Dr. Ted Taylor videotaping questions to be put to the Russian military scientist, cutting to shots of Russian elections.

The program then shows street scenes in Ekaterinburg and a meeting with former nuclear physicist Yevgeniy Korolov, who replies to Dr. Taylor's questions.

Korolov says: "This technology is one of the most complex and one of the most dangerous. It enables you to create micro-nuclear charges. This means it can be used for nuclear terrorism."

The program continues with more shots of Ekaterinburg, followed by a meeting with another nuclear scientist willing to talk about red mercury who is shown Dr. Taylor's videotape questions. The scientist is then seen driving Roberts into the Urals to a plant where red mercury powder is said to be manufactured, showing medium and long shots of the plant against a snow-covered backdrop, followed by footage of a covert meeting with a weapons designer willing to answer Dr. Taylor's questions. His typewritten answers are shown to maintain his anonymity.

The program concludes with a visit by Roberts to a security company near Bonn, which trades with Russia and has business links with secret military plants producing radioactive isotopes. A document acquired in Ekaterinburg is shown which demonstrates that this company wishes to purchase 1,000 kg of RM 2020, cutting to what is described as a list of the chemical properties of RM 2020. [Note From The Editor] You can order this videotape from the FBIS TV Center by calling in Virginia 1-800-822-5115 or outside Virginia 1-800-542-8660. Ask for videotape number LIT 94-050.

KAZAKHSTAN

All Nuclear Weaponry in Kazakhstan Belongs to Russia

LD2804185494 Moscow NTV in Russian
1800 GMT 28 Apr 94

[Text] Some very interesting facts were made public today in Moscow's Artillery and Missile Forces Academy. A film crew from the Segodnya program were the only journalists present.

Correspondent Ivliyev: The nuclear strategic missiles based in Kazakhstan belong to Russia—this is the sensational news reported today by the Colonel General Igor Sergeyev, commander in chief of strategic missile forces, at a briefing for foreign military attaches which took place in the Dzerzhinskiy Military Academy.

[Begin Sergeyev recording] A month ago, on 28 March, an agreement was reached during the Russian-Kazakhstan talks on giving Russian status to the formations and units of strategic missile forces stationed temporarily on Kazakhstan territory. A timescale was also agreed for the withdrawal of nuclear warheads to Russian territory. [end recording]

Ivliyev: The agreement reached means that the personnel of the missile forces receive Russian citizenship. After the stage by stage withdrawal of missile force units from Kazakhstan is completed, the launch shafts will be dismantled, apparently by Russian specialists. Thus all three CIS states—Ukraine, Belarus, and Kazakhstan—on whose territory nuclear weaponry remained after the collapse of the USSR, now have a treaty with Russia on its removal. In a few years, if these countries fulfill their obligations, Igor Sergeyev stressed, they will become non-nuclear states.

Aleksey Ivliyev, Andrey Melikhov, NTV, from the Dzerzhinskiy Military Academy. [Video shows: military attaches listening to Sergeyev; archive footage of missile control rooms and launch shafts; nuclear bunkers and missiles]

Missiles Becoming 'Instruments of Political Blackmail'

PM2904085394 St. Petersburg Fifth Channel Television Network in Russian 1800 GMT 20 Mar 94

[From the "Itogi" newscast: Video report from Kazakhstan by Aleksandr Gerasimov, identified by caption]

[Text] [Gerasimov over aerial view from helicopter] "Zone of consequences of the politics of the absurd"—this is probably the most apt description of the stationing locations of Strategic Missile Forces units in Kazakhstan. This is the fourth year since the disintegration of the Soviet Union, and the leaders of the nuclear republics have still not reached agreement on the division of nuclear weapons. These weapons, used as a deterrent until recently, are being turned into an instrument of

political blackmail. Those who stand to lose from this are our own security, and the thousands of servicemen serving in the missile forces. [video shows aerial view from helicopter, truck-mounted missiles on the move, extensive closeups of missile silo interior, two servicemen in a missile control room, more closeups of missiles]

Formally, anything located on Kazakhstani territory belongs to Kazakhstan. At the same time, Alma-Ata [Almaty] has acceded to the offensive arms reduction treaty and does not regard itself as the owner of nuclear missiles. However, as a result of the cooling of relations between Kazakhstan and Russia, which followed the rejection of Nazarbayev's concept of the ruble zone, nobody is currently able to clearly define the nuclear weapons' status. [video shows more closeups of giant missiles]

[Gerasimov to camera and over video of missiles above ground] The nuclear weapons concerned are 104 of the world's most powerful strategic missiles—the SS-18—deployed in two divisions on the territory of Kazakhstan. The prevailing view is that these are Russian divisions. However, unlike in other armies, no state flag is flying above the headquarters. Admittedly, the main orders and the wages come from Moscow. Both the officers who have sworn allegiance to Russia, and the men who have taken the Kazakhstani oath and whose knowledge of Russian is poor, but who serve under Russian service regulations, are being paid in Russian rubles.

[Unidentified Russian officer addressing servicemen] No. 12 Platoon don gas masks! [video shows lineup of servicemen donning gas masks]

[Gerasimov over video of gas mask exercise] At the same time, Alma-Ata is also issuing menacing orders. Their implementation has resulted in the accumulation at nuclear bases of an impermissibly large number of warheads which have come to the end of their guaranteed service life.

[Akhmet Khashchegulgov, missile division commander, identified by caption] The accumulation of nuclear warheads in the missile division is in excess of the set norms. This is primarily the result of a decision by the leadership of the Republic of Kazakhstan banning the removal of nuclear warheads, missiles, missile fuel components, and other types of hardware from the territory of Kazakhstan.

[Gerasimov over more video of missile silo and control room scenes] According to our information from the Russian Government, the explanation for this stance adopted by Alma-Ata is President Nazarbayev's intention during his upcoming visit to Moscow to demand compensation for the highly enriched uranium contained in nuclear charges. In addition, strategic missiles

offer a good bargaining chip in the political horse-trading between the two states whose relations are far from straightforward.

Officers here take the view that nuclear safety can be guaranteed only if their divisions are given the status of Russian military bases. For some reason, they believe here that this will be resolved during the upcoming meeting between Yeltsin and Nazarbayev.

Perhaps when this meeting has taken place, the local Kazakhstani authorities will stop cutting off the electricity and water supply to the military garrisons. In that case officers' children will no longer have to freeze in schools and kindergartens, and the officers on duty will no longer have to struggle to maintain the survivability of the nuclear missiles. Commanders will be able to find the money needed to repair heat supply networks, and the pipes for this work will no longer have to be flown in from Moscow. *[video shows everyday life scenes, children]*

To Senior Lieutenant Mikhail Kryukov and Major Vasiliy Salashnov, who are on alert duty deep down under ground, empty shelves in the garrison's stores are nothing new. Just like their comrades, they are constantly ready to implement orders. Nonetheless, most of the officers are dreaming about returning to Russia where conditions of service are more comfortable. Many of them remain in Kazakhstan only because of speedier promotion and because 12 months of service counts for 18 months here. *[video shows more missile installations, store scenes]*

Meanwhile, certain circumstances seem to indicate that Kazakhstan's leadership is not really seeking to improve relations with Russia. So for example, a strategic installation—a Kazakhstani air defense unit located near the missile division at Derzhavinsk—is completely snowed under. When the Kazakhstani air defense troops were still Soviet troops they protected the nuclear missiles from air attacks. Now the station is deserted.

A Kazakhstani-U.S. joint venture for extracting high-grade metals from missile silos which are being taken out of service is being set up in Alma-Ata. It appears that the Kazakhstanis trust Moscow less and less. The Russian authorities, in turn, are taking no steps toward a rapprochement with Kazakhstan. *[video shows extensive, detailed views of nuclear missile installations in Kazakhstan]*

UKRAINE

Forty-Six More Nuclear Missiles Deactivated

LD0505130894 Moscow INTERFAX in English
1028 GMT 5 May 94

[Text] Ukraine has deactivated forty-six SS-24 missiles (removed nuclear warheads from them), Deputy Premier Valeriy Shmarov, who is responsible for the military-industrial complex, told Interfax-Ukraine. According to

him, in the future "Ukraine hopes to get Western aid for the process of dismantling strategic nuclear missiles deployed on its soil."

As Shmarov maintains, "by signing the trilateral statement concerning nuclear arms Ukraine undertook to dismantle missiles, and it is fulfilling its pledge without any aid from other countries."

He spoke about this with members of the American delegation visiting Ukraine now, the deputy premier said.

According to him, top priority will be given to removing from Ukraine nuclear warheads, whose safety guarantees will soon expire.

There are 176 strategic nuclear missiles on Ukrainian soil. Since the Russian, Ukrainian and American Presidents signed their statement concerning Ukraine's nuclear disarmament forty nuclear warheads have been removed from Ukraine in exchange for Russian fuel to be used by Ukraine's nuclear-power plants.

Kiev Starts Examining Disarmament Aid Offers

Multilateral Donor Meeting in Kiev

WS1904134794 Kiev Ukrayinske Radio First Program
Network in Ukrainian 1000 GMT 19 Apr 94

[Text] At the Ukrainian Foreign Ministry, multilateral consultations devoted to the magnitude and direction of assistance to Ukraine in dismantling its nuclear weapons began today, with the participation of representatives of 14 leading countries of the world. At the opening ceremony, Deputy Prime Minister Valeriy Shmarov delivered an introductory speech.

Western countries and international organizations are to examine a whole range of programs and projects in areas vital for Ukraine. Special attention has been paid to projects for converting defense industry enterprises, transforming their production into civil purposes, resolving social problems, and building housing for servicemen released from duty.

The multifarious consultations are aimed at establishing specific cooperation between Ukraine and leading countries of the world in resolving one of the most painful issues facing Ukraine—the safe elimination of nuclear weapons inherited from the former Soviet Union.

Vice-Premier Comments

LD2004083794 Moscow ITAR-TASS in English
0720 GMT 20 Apr 94

[Text] Kiev April 20 TASS—Ukrainian Vice-Premier Valeriy Shmarov said at multilateral consultations in the Ukrainian Foreign Ministry on Tuesday that several projects and programmes on liquidating nuclear weapons and conversion are of top priority for Ukraine.

They were offered for consideration to several Western countries which expressed a desire to give aid to Ukraine in this sphere.

The main attention was given to projects concerning the conversion of munitions factories, their reorientation on the output of civil products, solution of social problems, construction of housing for retiring servicemen and their retraining to learn civil professions and trades.

Asked by journalists to comment on this important event, Shmarov said: "It is very pleasant that many states as well as influential international organisations responded to our problems of liquidating nuclear weapons.

This is a great political support for us. As for real economic aid, we hope for receiving what they can give."

Japan To Grant \$16 Million for Disarmament

LD0405165794 Kiev UNIAN in Ukrainian
1510 GMT 4 May 94

[Text] Kiev [no dateline as received]—Our country will have a share of \$16 million in the \$100 million aid package allocated by the Japanese Government for nuclear arms dismantling in Kazakhstan, Russia, Ukraine, and Belarus, the Japanese Embassy told UNIAN on 4 May. Japan is expecting Ukraine to submit specific projects for this amount.

According to Ukraine's Foreign Ministry, the two countries are working on a joint declaration on principles of relations and cooperation between Ukraine and Japan, a memorandum on mutual understanding between the two countries' Foreign Ministries, and an intergovernmental agreement on mutual encouragement and protection of investments. They are also working on the issue of Ukraine's succession to the laws and agreements that regulated the relations between Japan and the former USSR.

Kravchuk Denies Retargeting Missiles at Russia

LD1904214594 Kiev UT-1 Television Network
in Ukrainian 1800 GMT 19 Apr 94

[Interview with Ukrainian President Leonid Kravchuk by unidentified correspondent at ceremony to open a new children's clinic in Kiev on 19 April; no video available—recorded]

[Excerpt]

Correspondent: Leonid Makarovych, the paradoxes in life today are endless, are they not? Today, the Russian press publishes materials on the intention of Ukraine to capture Kuban and develop new types of mass destruction weapons, while the Ukrainian president is opening a clinic for children.

Kravchuk, laughing: You said it yourself and this is paradoxical indeed. Paradoxes in the press—in this case

in some of the Russian newspapers—are, unfortunately, paradoxical indeed. I have read this publication today and I am under the impression that this is a kind of myth. Somebody thought: Why not create a myth? So this myth is being passed off as some reality.

I can tell you right out that nobody has issued any instructions for missiles to be retargeted, neither the president nor the Defense Council nor other state structures of ours. It has not even crossed our minds. As they say, it is only imaginative writing presenting it as reality.

Nor is there, was there, can there be, or will there be any development of any mass destruction weapons, because in general we as a state have been against mass destruction weapons right from the outset. We have no chemical or bacteriological weapons, and we as a state have determined our position with regard to eliminating nuclear weapons.

The impression is, you know, that this is some kind of unhealthy perception of Ukraine and I can say no more. I would just like to say that this is simply a myth. [passage omitted; on opening the clinic]

START I Debates Reviewed

94UM0362 Kiev NARODNA ARMIYA in Ukrainian
8 Apr 94 p 3

[Article from Vybir Independent Information Agency special for NARODNA ARMIYA: "A Non-Nuclear Ukraine. Too Cheaply?"]

[Text] *Should Ukraine be a non-nuclear state? That is the general question that includes thousands of other questions that have been officially resolved today. One step in that direction was the signing of the trilateral agreement in Moscow and the ratification of the START-I Treaty by the Ukrainian parliament. But it cannot be considered closed, not only because Ukraine has still not yet joined the Nuclear Non-Proliferation Treaty, but also because the official stance does not always coincide with the views of the leaders of the existing political forces.*

The Right

The head of the Ukrainian Conservative Republican Party, Stepan Khmara, feels that the signing of the trilateral agreement is a violation of the Constitution and a political stunt. The stance of UNSO is based on the postulate that Ukraine should be a nuclear power, since it has an age-old enemy right next door. By turning over the nuclear weapons of the former Soviet Union, Ukraine should without doubt simultaneously think about creating "its own nuclear bomb" today.

The head of the KUN, Slava Stetsko, had a negative opinion of the signing of the "trilateral agreement": "...KUN feels that this statement could not be signed, since after all it was not the only way out of the situation; quite a few influential politicians and commentators have stated that they understand why Ukraine is not

rushing to disarm—it is afraid of Russia. The more so considering the recent evidence of aggressiveness... Russia is trying to return the former republics to its lap somehow, announcing its claims to the right to carry out 'peacekeeping operations' on that terrain. They are maintaining their troops in the Central Asian republics and arranging provocations in the Caucasus and the Transcaucasus, as a result of which blood is being spilled. So returning to the problem of nuclear weapons, I would point out once again that the trilateral declaration is a mistake. We are not against disarmament in general. We are for a non-nuclear Ukraine. But in a non-nuclear world."

Unequivocal support for the idea of a strong nation state is characteristic of the representatives of the right wing; such a state is impossible today without nuclear weapons as a factor in restraining instability in its foreign-policy priorities with Russia, from their point of view.

National Democrats

The convictions of some representatives of the national-democratic bloc are close to the positions of the right-wing parties. And although they advocate the idea of a non-nuclear Ukraine, they also would accept nuclear weapons as one of the determining factors in the security of the state and property, and which should be sold as dearly as possible.

Mykhaylo Horyn, the chairman of the Ukrainian Republican Party, feels that the trilateral agreement is an exceptionally important document that requires profound analysis, but "to accept it as is, as it is now, would signify a serious blow to Ukraine."

Rukh leadership member Ivan Zayets holds a similar viewpoint. He asserts that "there is no document today that discusses weapons, as well as strategic nuclear weapons, in full. We have no document of what the concrete guarantees of the national security of Ukraine will be. We have no document today that revokes the territorial claims of Russia against Ukraine." Ivan Zayets feels that as a consequence of the incarnation of this document, Ukraine will be destroying not only the nuclear warheads, but will also have to destroy the entire infrastructure—the aircraft, the ships, the missiles, the silos.

Larysa Skoryk expresses complete support and understanding of the actions of the president. She considers the transfer of the nuclear weapons to Russia the first step toward getting out of the economic crisis that Ukraine is experiencing today. "The resolution of the nuclear problem, this hopeless nuclear 'kindling' that lies on our territory and which an outside hand could always ignite, from which we have gotten nothing but worry and a negative attitude toward ourselves, would open up a new way for Ukraine to receive urgent credits, of which, I am convinced, the very first portion should go to resolving the issues of food and power resources."

The Centrists

The political parties on this portion of the spectrum have indicated clearly that Ukraine should be a non-nuclear state, and should accept nuclear disarmament as a contract from which the greatest profit should be obtained. Leonid Kuchma, who today holds a position close to that of the PDVU, for example, sees this contract as unsuccessful: "They already have us wrapped around their finger, whatever may be said now."

Volodymyr Filenko, the leader of the Party for the Democratic Resurrection of Ukraine (PDVU), says that "the trilateral agreement pertaining to START-I signed in Moscow could be considered positive as a whole, but the details could be disputed: How much of a security guarantee there is, whether the nuclear fuel be returned to Ukraine, and guarantees of compensation to Ukraine."

"One of the basic program principles of the Green Party is to fight for a non-nuclear Ukraine. We are succeeding in this, but there are certain reservations. While entirely supporting nuclear disarmament, for example, we have reservations that in the case of our use of nuclear fuel, we will once again be energy-dependent. Because the nuclear fuel will be processed abroad, and we will have to buy it...," says Volodymyr Kononov, the head of the Green Party of Ukraine.

The social democrats hold a similar, clear-cut position. Yuriy Zbitnev, the head of the Social-Democratic Party of Ukraine: "Ukraine should, of course, be a non-nuclear state in the process that has started today as a whole." But in evaluating the withdrawal of nuclear weapons from Ukraine, he said pointed out that "in any case the signing of the agreement on nuclear disarmament will be an extraordinarily great step for Ukraine. The evaluation of that step should come in the next two or three years. The compensation will provide us with electric power, power resources and the possibility of creating a stabilization fund for the hryvnya. If the agreement really does provide an impetus for the world disarmament process, then it will be a substantial result. But if this process puts us once again on our knees before neighboring states and threatens the security of Ukraine with regard to the Near East, where the processes of nuclear disarmament are still only being planned (and it is doubtful that they will be developed in the near future), then the evaluation will of course be quite different."

The Left

Sympathy with the idea of the nuclear status of Ukraine is felt to be lost among the socialist camp. This question is being considered within the context of a system of collective security, which cannot be created today without tensions in mutual relations with Russia. Oleksandr Moroz, the head of the Socialist Party of Ukraine: "We have taken on the resolution of a great many issues that have not permitted us to be occupied with the economy or strengthening the independence of our nation. National security is not guaranteed anywhere

in the world through one's own forces alone. The mechanism of collective security operates all the time to this or that extent. We, in our jingoistic patriotism and ignorance, have rejected that. What has the state gained in that regard? Nothing. We have only lost the status of a nuclear power, a high technical level of production, and scientific and technical potential."

It is obvious from all of the aforementioned that the leaders of the leading political forces, independently of their positions with regard to the nuclear status of Ukraine, for the most part do not accept the form in which the withdrawal of nuclear missiles from the territory of Ukraine has been proposed. Most of them approve of the idea that this step was a mistake in the foreign policy of Ukraine. It is becoming more and more comprehensible that the question of nuclear status has no easy solution.

Commentary Stresses Safe Operation of Nuclear Missile Site

AU2804104994 Kiev DEMOKRATYCHNA UKRAYINA in Ukrainian 26 Apr 94 pp 1,3

[Viktor Krokhamlyuk commentary: "Beware: Disinformation!"]

[Text] KOMSOMOLSKAYA PRAVDA published an article by its correspondent Olga Musafirova under the title "The Hetman [Bohdan Khmelnytsky] With a Nuclear Mace; There Is No Strength To Hold It, and It Is Terrifying To Drop It.... Khmelnytsky Is Agitated by Rumors." Here is a quotation from that publication: "At the site near Bohdaniivtsi, 20 liquid-fuel SS-18 missiles seem to have been disabled and dismantled. There arose some problems with the storage of the 'liquid,' and heptyl, a poison of group 'S' that is extremely toxic for all living organisms, is already poisoning the surrounding woods."

In this connection, a news conference was held at Ukraine's Security Service Administration in Khmelnytsky Oblast.

What actually happened? Missile specialist Ye. Arkhypov has this to say:

"Today, about 90 launchers have been taken off the alert—one regiment here and one—in Pervomaysk. The technology for pouring out the liquid fuel is such that no environmental damage may occur as a result. It is carried out by the method involving high pressure, and, therefore, not a single drop of heptyl may get either into the soil or onto the people servicing these operations."

Colonel Ye. Arkhypov also said that the system of control over the course of dangerous operations has a triple and, in some cases, fivefold guarantee. Work on servicing missile sites is conducted, as usual, according to plan and systematically, and specialists from all countries arrive there, so that it would hardly be possible to conceal any problems from them.

In the near future, Khmelnytsky missile specialists are expecting U.S. ecological safety inspectors; they will see what they themselves want to see and not what the Ukrainian side will recommend. Therefore, it is unlikely that our missile specialists may conceal anything even if they wanted to.

As emphasized at the news conference, nuclear fuel is too valuable a commodity to export or to sell at a very cheap price to CIS countries, in particular, to Russia, as some people are suggesting. The fuel remains on site, and then some of it is sent to special arsenals for storage and some—for processing at chemical plants. Such a component of propellant fuel as the oxidizing agent is a very important product for manufacturing mineral fertilizers. Today, we must also think about Ukraine's space future.

Recently, an accord was signed with Kazakhstan on the joint use of Baykonur. We will be able to operate Ukrainian missiles with our own fuel instead of paying thousands and millions of dollars for this.

I will add my personal remark: Even following the KOMSOMOLSKAYA PRAVDA material under the provocative title "Khmelnytsky Is Agitated by Rumors," the situation in the town is calm, and I did not see any signs of fear, panic, or complaints against the missile specialists stationed here.

FRANCE

Defense Minister on French Nuclear Weapons

LD2104201394 Paris France-Inter Radio Network
in French 1700 GMT 21 Apr 94

[Text] Twenty-four hours ago, the cabinet approved a law setting out the military plans for the next six years. Defense Minister Francois Leotard has now given more details on the French Army's equipment. The priority will be the modernization of weapons, nuclear and nonnuclear weapons. Francois Leotard was interviewed by Frederique Barrere:

[Begin Leotard recording] Modernizing our forces means, of course, keeping our nuclear dissuasion for ever. The law provides 130 billion francs to preserve and renew our nuclear capacity. So, we have decided to continue our efforts as far as the M5 missile is concerned. It will start to be used in the year 2010, not in 2005. We will continue the program concerning four SSBNs of the new generation. The basic weapons we need are taken in due consideration: Leclerc tanks, the Tigre helicopter, the nuclear aircraft carrier Charles De Gaulle—which will be operational by mid-1999 with its flotilla of naval version Rafale interceptor-planes. The Air Force will also have Mirage 2000D; as you know the first planes of this kind are being used in Bosnia-Herzegovina now. Lastly, in line with our crisis-management strategy, we will start a program for long-range precision weapons which should be completed by 2001. [end recording]

General Urges Intelligent Weapons Programs, Nuclear Tests

BR2104132294 Paris LIBERATION in French
21 Apr 94 p 4

[Interview with General Gallois by Dominique Garraud; place and date not given: "General Gallois: 'We Must Not Be the Mercenaries of Europe'"—first paragraph is LIBERATION introduction]

[Text] In 1956, General Pierre-Marie Gallois was one of the founders of France's nuclear deterrence doctrine. Now aged 82, he is still a leading expert in military strategy. He will stand in the European elections for a non-electable place on the voting list headed by [former Socialist Defense Minister] Jean-Pierre Chevenement. In the wake of the government's White Paper on Defense presented last month, General Gallois is soon to publish his own version: "Black Paper on Defense" (Footnote) (Payot Essays, 85 French francs)

Garraud: France is today the only Western European country actually increasing its military spending. Is this a worthy priority?

Gallois: I would have preferred the spending to be devoted to improving and perfecting military technology for the essential task of keeping France out of war

situations through a policy of intimidation. The White Paper proposed a "long-distance interventions force" taken from a stock of 130,000 men capable of intervening 7,000 km from France. Even with the assistance of our allies, that would require considerable resources. It is an excessive ambition, unless we accept to become the mercenary force of the Europe under construction, a role that I would not like at all.

In the past 12 years, France has mounted or participated in 25 military expeditions. During this time, our European partners have invested in vocational training, scientific research, economic and industrial development, the environment, and improving living conditions. The question is whether we have the resources to continue in this way.

Garraud: What, in your opinion, should France's military priorities be?

Gallois: Today, public opinion will no longer tolerate military expeditions in which the country suffers losses, which would quickly be considered excessive. That is why the only policy I can envisage is one of intimidation. France should strive to develop long-distance weapons, which can be operated without endangering the lives of the people who serve them.

With so-called "intelligent" weapons, the combatant becomes more of a director than an actor. I do not think this change has been understood.

Garraud: What implications should such a change have for the military programming law?

Gallois: In absolute terms, all major programs designed for the Cold War should be downscaled so as to open up new avenues of research. For example, when you compare the Rafale with the American F117 bomber, it is clear that the latter is stealthy, whereas the former is not. The airplane should now be viewed more as a way of getting weapons airborne than as an actual combat machine in its own right. It is the intelligent missile that should do all the long-distance destruction, the plane having turned tail for home a long time before. To date, we have not taken this view. We invest money in the plane rather than the missile. That is a conceptional error. The Leclerc tank is a traditional land army tank, but it is not suited to the current circumstances. What good is a maneuver force today? We have to take new directions.

Garraud: Your priority remains the nuclear deterrent. How do you see this evolving?

Gallois: We have to keep the strategic oceanic force, which is almost invulnerable. I would add several submarines with much more accurate, very-low-power ballistic missiles. In this way, we could intervene at great distances from France without having to massively deploy conventional forces, as the United States did for the Gulf war.

Another component, although not absolutely essential, is a mobile weapons system based in France and consisting of double-capacity ballistic missiles, such as the Pershing 2's. These would be accurate and could take nuclear or conventional warheads. In this way, we could confine the belt of instability which is taking shape from Japan, across North Africa, to Argentina and Brazil. Many of the countries in this belt have ballistic missiles and we must have the means of deterring anyone from using the slightest element of blackmail against us. These countries must say to themselves: "If we use these weapons, we run the risk being replied to in kind."

Garraud: To modernize the deterrent, do we still need to carry out nuclear tests?

Gallois: Nuclear testing should be restarted. If we decide to stop testing definitively, as the president of the Republic has said, we will be taking a tremendous risk. The American experts themselves say that these tests must be continued, if only to check the quality of weapons as they get older. This cannot be done by simulation. A limited amount of testing will always be needed.

Garraud: You also recommend that we acquire an extremely expensive antimissile defense system. How can we do this in the current context of budget constraint?

Gallois: I would put it in a collective European context. Certain things that ensure our security and reinforce our scientific capabilities can be done at the national level, but there are technologies that we cannot acquire because they are out of range of our resources. Similarly, if the Europeans decide on long-distance interventions, clearly the corresponding fleets of cargo and transport planes can only be put together collectively.

This should be included as a conditional section in the military programming law. What I do not like about the White Paper is that it assumes that other countries will agree with our scenarios.

GERMANY

Bonn Providing DM20 Million for Disarmament in CIS

*AU2604124894 Munich FOCUS in German
25 Apr 94 p 73*

[Unattributed report: "CIS Disarmament: With Bonn's Money and High Technology"]

[Text] With German "know-how" and 20 million German marks [DM] (for 1993-94) for the time being, the FRG Government wants to accelerate the abolition of chemical and nuclear means of mass destruction in Russia and Ukraine. At the moment, the Russians can destroy only about 2,000 nuclear warheads per year. On the territory of the former Soviet Union there are 30,000 nuclear warheads and, in Russia alone, 40,000 tonnes of chemical weapons. It would take 15 to 20 years to destroy these stocks.

An internal paper of the Foreign Ministry says that, in October 1993, an agreement was concluded with the Defense Ministry in Moscow on the construction of a pilot plant for the destruction of the chemical combat agents lewisite and yperite in the area of Saratov (final price DM62 million). A mobile laboratory for the analysis of combat agents was handed over to the Russians already in December 1993. The costs for the "disarmament aid for chemical weapons" in 1993: about DM5 million. For the accelerated disarmament of their nuclear weapons Russia and Ukraine have asked the Federal Government this year for equipment as well as control and safety systems at a value of about DM17 million.

Spokesman on Objectives at Disarmament Commission Meeting

*LD1604162294 Moscow Radio Moscow World Service
in English 1910 GMT 15 Apr 94*

[Text] The UN Commission on Disarmament opens for a session in New York on the 18th. In this context the Russian spokesman in the commission, Igor Sherbov, said that the Disarmament Commission of the United Nations is a major body in the system of multilateral talks in this sphere. Nearly all the states, members of the world community, work in it. At its coming session the commission will consider recommendations for the process of nuclear disarmament within the framework of international peace and security. The agenda also includes the drafting of recommendations to regulate international shipments of conventional armaments and the prevention of illegal trade in arms. This primarily concerns the so-called crisis regions and prevention of the delivery of arms to international terrorism.

What objectives will the Russian delegation pursue at the session of the UN Disarmament Commission? Igor Sherbov notes that first of all one should try and call the attention of the commission to the priorities of the

country in the field of multilateral disarmament. What is meant is ensuring a consistent fulfillment of agreements already reached, raising the effectiveness of the mechanism of talks on disarmament. The delegation will see to it that the session approve documents reflecting such a key issue as a complete and comprehensive ban on nuclear tests. It is important to consolidate the progress already made in this sphere by the Geneva conference. The commission should also call attention to the need of increasing the effectiveness of the Nonproliferation Treaty, which expires in the year 1995.

Russia is interested in having all achievements in science and technology used first of all for peaceful purposes. Interest is shown in making universal regimes in the system of export control of dual-purpose technology and preventing an arms race in qualitatively new systems of weapons. Achievements in science and technology should be used for a collective development of control instruments and for technical assistance in the realization of agreements on disarmament. This would make it possible to reduce expenditure on international control of action on agreements on the limitation of arms and disarmament, said Igor Sherbov.

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